



**Detailed Summary**  
**Regarding the Nunavut Impact Review Board**  
**Final Hearing Report of June 15, 2016**  
**on the Back River Gold Mine Project**

**July 20, 2016**

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## I. INTRODUCTION

On June 15, 2016, the Nunavut Impact Review Board (NIRB or the Board) issued its *Final Hearing Report*, NIRB File No. 12MN036 (the NIRB Report or the Report) to the Minister of Indigenous and Northern Affairs Canada (INAC) after an environmental assessment of the potential ecosystemic and socio-economic effects of the Sabina Gold & Silver Corp. (Sabina) Back River Gold Mine Project (the Project) under the provisions of Article 12 of the *Nunavut Land Claims Agreement* (NLCA). The NIRB Report recommended to the Minister that the Project should not be allowed to proceed to the permitting and regulatory approval stage at this time due to “uncertainties” relating to caribou protection and other matters.

Respectfully, this recommendation was a significant surprise to Sabina and to many of the other parties that were involved in the NIRB process. We do not believe it reflects the high level of support for the Project and consensus among Sabina, the key federal and territorial regulatory authorities, the NLCA Designated Inuit Organization (Kitikmeot Inuit Association (KIA)), the year-round Kitikmeot communities of Cambridge Bay, Kugluktuk, Gjoa Haven, Taloyoak, and Kugaaruk as well as the Burnside Hunters and Trappers Organization (Bathurst HTO) and Kugluktuk Hunters and Trappers Organization. By the conclusion of the public hearings, these parties as well as others that participated in the NIRB review were generally in agreement regarding the positive socioeconomic benefits of the Project, the high quality of Sabina’s environmental assessment of the Project and the stringent mitigation measures that Sabina had committed to for the protection of caribou and for the protection of the environment in general. This broad support was facilitated through the collaborative review process as well as Sabina’s continuous engagement and consultation with all stakeholders.

Under the provisions of Section 12.5.7 of the NLCA, the Minister may decline to accept the Report and then has the following options:

- Under subsection 12.5.7(d), reject the determination of NIRB on the grounds that the Project should have been approved because of its importance in the national or regional interest, and refer the Report back to NIRB to consider terms and conditions which should be attached to any project approval; or

- Under subsection 12.5.7(e), where the Report is deficient with respect to ecosystemic and socio-economic issues, refer the Report back to NIRB for further review or public hearings.

With great respect to the NIRB and its staff, Sabina has requested that the Minister reject the NIRB Report and return the Report to the NIRB to provide recommended terms and conditions, under subsection 12.5.7(d) of the NLCA. Sabina is confident that the Board's uncertainties can be fully resolved by:

- the commitments made by Sabina for the protection of caribou and the protection of the environment;
- appropriate terms and conditions incorporated into a project certificate;
- compliance with environmental laws and regulations;
- compliance with the terms and conditions of licences, authorizations and permits specified by federal and territorial agencies at the regulatory stage; and
- compliance with requirements to be agreed to between Sabina and the KIA under land use leases and an Inuit Impact and Benefits Agreement.

Sabina has also requested that the Minister recommend that NIRB hold a workshop or technical review session to provide Sabina, the KIA, federal and territorial agencies, and other parties with the opportunity to propose and to consider appropriate terms and conditions which should be attached to any project certificate. This approach would provide NIRB with additional support in addressing its uncertainties as well as an opportunity for further collaboration between Sabina and the parties to the NIRB review.

In the alternative, Sabina requests that the Minister make a determination that the NIRB Report is deficient and refer the report back to the NIRB for further review under subsection 12.5.7(e) of the NLCA, based on the various deficiencies in the NIRB Report identified in the summary below.

The uncertainties identified in the NIRB Report are all of a nature that are inherent in any environmental assessment process and as such are regularly addressed by NIRB through recommended terms and conditions. Sabina believes that there are very strong grounds for rejecting the determination of NIRB and referring the report back to NIRB to consider the types of terms and conditions which should be attached to any project approval.

It is respectfully submitted that the Minister should decline to accept the NIRB Report and should refer it back under Section 12.5.7(d) of the NLCA because it:

- fails to fully recognize or evaluate the regional benefits of the Project.
- does not give appropriate weight to the support of the Project by Inuit representatives and communities, and does not give due consideration to:
  - Section 12.5.5(c) of the NLCA, which states: *"NIRB shall, when reviewing any project proposal, take into account all matters that are relevant to its mandate, including the following:... (c) whether the proposal reflects the priorities and values of the residents of the Nunavut Settlement Area"*; or
  - Section 12.2.5 of the NLCA, which states: *"a primary objective of NIRB shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area"*;
- does not give appropriate weight to the socio-economic benefits of the Project to be secured under an Inuit Impact and Benefit Agreement as required by the NLCA;
- does not comply with mandatory requirements of Article 12 of the NLCA - there is no detailed consideration in the NIRB Report of the individual matters that must be considered under Section 12.5.5 of the NLCA (with the exception of performance bonds under Section 12.5.5 (f)), or the Primary Objectives of the review stated in Section 12.2.5. of the NLCA;
- makes errors by reaching conclusions concerning caribou protection measures that are without evidentiary basis and that are not consistent with the evidence submitted by

experts, responsible government agencies, and the KIA on the monitoring and mitigation measures, including adaptive management for the protection of caribou. The caribou protection measures were developed in a collaborative and responsive process, and included and accepted recommendations made by the government agencies, including the Government of Nunavut and the Government of the Northwest Territories who have responsibilities for the management and conservation of caribou; and

- does not give appropriate weight to the views, mandates and responsibilities of federal and territorial regulatory agencies, and the application of environmental laws and regulations and regulatory policy initiatives in addressing any “uncertainties” relating to other areas of environmental protection such as water quality and fish habitat.

This Detailed Summary identifies issues with the NIRB Report for consideration by the Minister in support of the respectful request by Sabina that the Minister decline to accept the NIRB Report and that the Minister refer the Report back to NIRB to recommend Project terms and conditions.

## II. Overview of Back River Project

The Back River Project is a proposed gold mining project located almost entirely on Inuit Owned Lands in the West Kitikmeot region of Nunavut. The Project location is shown on Appendix A.

The Project consists of the following main components:

- the Mine Site and facilities at the Goose Property;
- the Marine Laydown Area at Bathurst Inlet; and
- an ice road to be constructed during the winter of each year connecting the Mine Site with the Marine Laydown Area.

Ore from the Goose Property will be mined using open pit and underground methods. Site facilities include a processing plant, waste rock storage area, tailings storage facility, air strips, winter roads connecting the various sites, administration, accommodations, power generation, maintenance facilities, warehousing, and water and waste management facilities and fuel storage. Annual delivery of equipment, fuel, materials and other supplies will be shipped in to Bathurst Inlet during the open water season - approximately three to five vessels per year. The incoming supplies will be offloaded and stored until winter at a Marine Laydown Area at Bathurst Inlet. The supplies will be transported by truck to the mine site over a winter ice road of 157 km constructed each year. Facilities at the Marine Laydown Area will include a seasonal terminal barge that will accept supplies from lightering barges, a laydown area, storage and maintenance facilities, accommodations and fuel tanks.

The life of the Project, from mobilization to post-closure is approximately 27 years, and includes 10 years of production mining.

The Mine Site and the Marine Laydown Area are located outside of the range of the Bathurst caribou herd. The winter road overlaps the eastern edge of the Bathurst caribou range - but the winter ice road is seasonal - and does not overlap seasonally with the caribou which are present only during the summer in that part of the range. Accordingly, neither the Mine Site,



the Marine Laydown Area, nor the winter road has any interaction with the Bathurst caribou herd.

The GNWT is generally recognised as the lead agency with respect to conservation and management of the Bathurst herd. The GNWT confirmed to NIRB that the Project Development Area of the Goose Property and the Marine Laydown Area are not geographically within the Bathurst caribou range and that the winter road does not overlap seasonally with the Bathurst caribou range. In its final submission to NIRB the GNWT stated as follows:

*"GNWT acknowledges that Sabina's removal of the George Property from the Back River Project as outlined in the FEIS means that the annual range of the Bathurst herd as determined by analysis of collaring data does not overlap either geographically with the Project Development Areas of the Goose property and Marine Laydown Area nor seasonally with the winter road between the two sites. GNWT agrees that the project as it is now proposed represents a reduced risk to Bathurst caribou of experiencing negative impacts from the Back River Project; however, GNWT maintains that appropriate contingency planning in the event that range shifts occur along with robust caribou mitigation measures are key to ensuring that impacts to the Bathurst herd and the Beverly herd remain not significant. It is for this reason that GNWT has focused this preview primarily on sections of the FEIS that elaborate on mitigation and monitoring of impacts to caribou."*<sup>1</sup>

As discussed in more detail below, the NIRB Report, in considering the extensive caribou monitoring and mitigation measures, which included the recommendations of the KIA, the GN and the GNWT, failed to give appropriate weight to the fact that the main Project components including the Mine Site and the Marine Laydown Area, are outside of the range of the Bathurst caribou herd, and that the winter ice road does not interact seasonally with the Bathurst caribou range. Additionally, the NIRB Report does not give appropriate weight to the monitoring and adaptive management including in the caribou protection measures in the unlikely event of a shift in the Bathurst caribou range.

The Project Development Area does overlap geographically with the Beverly caribou herd range. However, the Project is located at a considerable distance from the calving and post-calving ranges of the Beverly herd. The evidence presented to NIRB by Sabina, the KIA, and the government agencies responsible for the conservation and management of the caribou

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<sup>1</sup> GNWT Final Written Submission, p. 11



herds was that, with the caribou protection measures, the Project would not have any significant impact on the Beverly caribou herd.

### III. ENVIRONMENTAL IMPACT STATEMENT

Sabina filed its Project proposal with NIRB on June 14, 2012, commencing a four-year environmental assessment process leading to the public hearings in Cambridge Bay in April 2016. The procedural history of the environmental assessment is accurately summarized in Table 1 of the NIRB Report.<sup>2</sup>

A Draft Environmental Impact Statement prepared in accordance with NIRB guidelines was submitted in January 2014. After extensive consultation and technical review by all parties, the FEIS was submitted in November 2015. The FEIS consists of 10 Volumes and approximately 15,000 pages. The scoping of potential Valued Ecosystem Components (VECs) and Valued Socio-economic Components (VSECs) involved public consultations, the use of Traditional Knowledge, regulator consultations and regulatory considerations, and recommendations presented in the NIRB EIS guidelines (NIRB 2013). Subsequent to the filing of the FEIS, Sabina filed additional technical and Project information addressing various follow up questions from parties in the NIRB process.

Sabina actively worked to collect and incorporate Project-specific Traditional Knowledge throughout the FEIS. Perhaps most importantly, Sabina signed a Traditional Knowledge Agreement with the KIA in 2012 and later partnered with them on two major Traditional Knowledge initiatives relevant to the Project area. While Sabina and the KIA jointly developed work plans for these two studies, the KIA led all data collection and reporting activities. The first report prepared by the KIA<sup>3</sup> was regional in nature and presented Traditional Knowledge from 68 individuals from the western Kitikmeot Region, while the second report was specific to the Project and presented Traditional Knowledge from 17 Elders and land users intimately familiar with the Project and/or surrounding areas. These two reports provided a substantial amount of Traditional Knowledge on topics such as wildlife (e.g. caribou, muskox, bears, fish, birds), other environmental components, and Inuit

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<sup>2</sup> NIRB Report, p. 38

<sup>3</sup> Sabina Gold & Silver Corp., Back River (Hannigayok) Project, Naonaiyaotit Traditional Knowledge Project Report (KIA 2012)

harvesting, culture, and land use, while following established best practice Traditional Knowledge research methodologies.

In addition to these two studies, land user Traditional Knowledge was collected through a number of other methods. For example, Traditional Knowledge was collected during Sabina's community engagement program (e.g. through feedback received during public and stakeholder meetings held throughout the Kitikmeot Region, beginning in 2012) and documented in a community engagement database containing some 165 topic directories. In addition, a series of land use focus groups were held with residents of Cambridge Bay, Kugluktuk, Bathurst Inlet, and Bay Chimo as a component of the Project's socio-economic studies in order to better understand potential Project interactions with contemporary land user activities. Beyond these, a report on existing and publically available NWT Traditional Knowledge was also prepared (with a focus on caribou) and incorporated into the FEIS, to help ensure relevant Traditional Knowledge from Aboriginal organizations in the NWT was considered by Sabina.

Traditional Knowledge and community feedback were used for scoping and refining the initial VEC/VSEC list for the Project, and in the baseline against which potential effects were assessed. This baseline included Traditional Knowledge on matters such as caribou ecology, migration, and harvesting patterns, and revealed that caribou migration routes and the location of calving areas around the Project have changed substantially over time. The use of motion-sensor wildlife cameras also provided valuable baseline information, whose placement on the land was directly informed by the advice of local Inuit land users. Sabina's final significance determinations were likewise informed by Traditional Knowledge and every effort was made to ensure equal consideration of Traditional Knowledge and scientific data in the conclusions that were drawn. Finally, Traditional Knowledge helped inform the development of mitigation and monitoring programs for the Project. These were developed primarily to minimize potential Project effects on wildlife valued by local communities or to address areas where community concerns had been raised.

Based on these and other technical sources, the following VECs and VSECs and Subjects of Note were addressed in the FEIS:

*Atmospheric Environment (Volume 4)*

- VECs: Air Quality, Noise and Vibration
- Subject of Note: Climate and Meteorology

*Terrestrial Environment (Volume 5)*

- VECs: Vegetation and Special Landscape Features, Caribou, Grizzly Bear, Muskox, Wolverine and Furbearers, Migratory Birds, Raptors
- Subject of Note: Geology, Permafrost, Landforms and Soils

*Freshwater Environment (Volume 6)*

- VECs: Hydrology, Water Quality, Sediment Quality, Fish and Aquatic Habitat, Fish Community
- Subject of Note: Groundwater, Limnology and Bathymetry

*Marine Environment (Volume 7)*

- VECs: Water Quality, Sediment Quality, Fish and Aquatic Habitat, Fish Community, Seabirds and Seaducks, Ringed Seals
- Subject of Note: Physical Processes

*Human Environment (Volume 8)*

- VECs: Archaeology, Socio-Economics, Land Use, Country Foods
- Subject of Note: Paleontology, Human Health and Environmental Risk Assessment

Conclusions of the FEIS

The FEIS concluded that the socio-economic effects were positive. The FEIS concluded that, taking into account agreed upon monitoring, mitigation and management measures, the effects of the Project on each of the Valued Ecosystem Components (VECs) would not be significant.

#### IV. REQUIREMENTS OF PART 12 OF THE NLCA

##### A. NIRB Mandate and Primary Objectives

The mandate of NIRB is set out in Article 12 of the NLCA.

The NIRB Report does not specifically address the mandatory requirements as set out in the NLCA. It is submitted that it is a challengeable deficiency for the NIRB Report to neglect to consider the specific and mandatory requirements of Article 12 of the NLCA.

The primary function of NIRB under Article 12 is to focus on assessing impacts from individual project proposals – not to establish general policies, objectives and goals respecting regional development. Section 12.2.2 of Article 12 specifies as follows:

##### *12.2.2 - Functions*

*The primary functions of NIRB shall be:*

- (a) to screen project proposals in order to determine whether or not a review is required;*
- (b) to gauge and define the extent of the regional impacts of a project, such definition to be taken into account by the Minister in making his or her determination as to the regional interest;*
- (c) to review the ecosystemic and socio-economic impacts of project proposals;*
- (d) to determine, on the basis of its review, whether project proposals should proceed, and if so, under what terms and conditions, and then report its determination to the Minister; in addition, NIRB's determination with respect to socio-economic impacts unrelated to ecosystemic impacts shall be treated as recommendations to the Minister; and*
- (e) to monitor projects in accordance with the provisions of Part 7.*

Notably, the NLCA does not permit NIRB to establish requirements for socio-economic benefits:

*12.2.3 The mandate of NIRB shall not include the establishment of requirements for socio-economic benefits.*

Article 12 specifies certain mandatory requirements for NIRB in reviewing a project proposal. These include Sections 12.2.5 and 12.5.5. As noted below, the NIRB Report fails to give any specific consideration to either of these mandatory provisions.

#### *12.2.5 - Primary Objectives*

*In carrying out its functions, the primary objectives of NIRB shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well-being of residents of Canada outside the Nunavut Settlement Area.*

While reference is made to section 12.2.5 at page 48 of the NIRB Report when discussing the NIRB mandate, there is no section in the NIRB Report where any specific consideration is given to this section or to the “Primary Objectives”.

This challengeable deficiency is apparent in the fact that the NIRB Report does not give appropriate weighting to the widespread support of the KIA and of all of the established Kitikmeot communities, which reflected their views that the Project would promote their existing and future well-being while protecting the environment. These are the residents and communities of the Nunavut Settlement Area whose well-being must be a “primary objective” of a NIRB review. Yet the NIRB Report contains no reference to how this primary objective is considered. Of significant concern is that the NIRB Report appears to give higher priority to the view of a very few select individuals and of representatives from the NWT - being residents outside the Nunavut Settlement Area.

#### *12.5.5 - Matters Taken into Account*

*NIRB shall, when reviewing any project proposal, take into account all matters that are relevant to its mandate, including the following:*

*(a) whether the project would enhance and protect the existing and future well-being of the residents and communities of the Nunavut Settlement Area, taking into account the interests of other Canadians;*

*(b) whether the project would unduly prejudice the ecosystemic integrity of the Nunavut Settlement Area;*

*(c) whether the proposal reflects the priorities and values of the residents of the Nunavut Settlement Area;*

*(d) steps which the proponent proposes to take to avoid and mitigate adverse impacts;*

*(e) steps the proponent proposes to take, or that should be taken, to compensate interests adversely affected by the project;*

*(f) posting of performance bonds;*

*(g) the monitoring program that the proponent proposes to establish, or that should be established, for ecosystemic and socio-economic impacts; and*

*(h) steps which the proponent proposes to take, or that should be taken, to restore ecosystemic integrity following project abandonment.*

The NIRB Report makes only general reference to Section 12.5.5 of the NLCA at page 17, in the Executive Summary to the Report. The Report specifically considers Section 12.5.5(f) (“posting of performance bonds” at page 318). The NIRB Report makes no reference to any of the other mandatory matters set out in Section 12.5.5.

With respect to the general support for the Project, the NIRB Report gives no consideration to Section 12.5.5(a) respecting the well-being of the residents and communities of the Nunavut Settlement Area, or to Section 12.5.5(c) respecting whether the proposal reflects the priorities and values of the residents of the Nunavut Settlement Area. The NIRB Report reaches conclusions about the proposal without properly considering these mandatory matters required by Article 12 of the NLCA.

Another example is Section 12.5.5(g), which requires that NIRB consider the monitoring program that the proponent proposes to establish, or that should be established, for ecosystemic and socio-economic impacts. The NIRB Report gives no consideration to this mandatory matter, and contains no recommendations from NIRB as to monitoring programs that should be established. Part 7 of Article 12 of the NLCA specifically addresses the issue of project monitoring. Under Section 12.7.1, NIRB may provide for the establishment of a monitoring program for a project which may specify responsibilities for the proponent, NIRB itself, or Government. The NIRB Report is deficient in failing to give any specific



consideration to Section 12.5.5(g) or to Part 7 of the NLCA with respect to monitoring programs.

The “*uncertainties*” identified by NIRB with respect to environmental protection, may well have been addressed if NIRB had given any consideration to the above mandatory provisions of Article 12 of the NLCA.

B. NLCA Provides for NIRB to Establish Monitoring Programs

In Section 6.5.2 of the NIRB Report at pages 317-318, (“Views of the Board”), the Board expresses concerns regarding regulatory capacity and the number of ongoing initiatives for caribou management:

*In addition to questions about the regulatory capacity to meet specific regulatory obligations, as in past reviews, the Board has heard concerns regarding the capacity of regulators to participate fully on project working groups responsible for the development and implementation of effects monitoring, mitigation, and management functions, as well as ensuring sufficient capacity to provide an appropriate level of regulatory oversight for a project once it has been approved to proceed and once the initial permitting phase is completed.* Regrettably, although the experience with other active mining operations in Nunavut may have given regulators a better understanding of the human and financial resource commitments required to fulfill their on-going responsibilities for these types of projects, the Board also notes that fiscal constraints continue to impact the capacity of all participants in the Territorial and Federal regulatory systems. The Board has concerns that with an unprecedented number of on-going initiatives for caribou management at local, regional, and transboundary scales the failure of any of the central regulatory agencies, landowners, First Nations, Inuit, community members, and researchers to fulfill their roles could jeopardize these vital efforts.<sup>4</sup>

No regulator (nor KIA) indicated that they have any issues with respect to capacity or fiscal restraint which would affect their regulatory oversight of the Project or with respect to the ongoing initiatives for caribou management (it is noted that the citation the Board gives for the highlighted statement above is a reference to the Board’s discussion of this issue in the Mary River Project NIRB Final Hearing Report and not any evidence from the Back River review).

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<sup>4</sup> NIRB Report, p. 318

Further, if the Board has concerns regarding government monitoring, it has the ability pursuant to the NLCA to add terms and conditions in the Project Certificate to fully address the concern. Article 12.7.1 explicitly states that NIRB may establish conditions which specify responsibilities for the proponent, NIRB or government:

*12.7.1 - Project Monitoring*

*The terms and conditions contained in:*

*(a) a NIRB project certificate issued pursuant to Section 12.5.12 or 12.6.17;*

*(b) a recommendation of NIRB pursuant to Sub-section 12.4.4(a); or*

*(c) any approvals issued by the NWB,*

*may provide for the establishment of a monitoring program for that project which may specify responsibilities for the proponent, NIRB or Government.*

The NLCA also explicitly grants NIRB the ability to require regulatory agencies to supply NIRB with information as part of project monitoring:

*12.7.3 Without limiting the generality of Section 12.7.2, the monitoring program set up pursuant to that section may include:*

*(a) a requirement that regulatory agencies and the proponent supply NIRB with reports and information respecting project operations and impacts, and the implementation of mitigative measures;*

*(b) a requirement for a periodic evaluation by NIRB of monitoring programs for projects; and*

*(c) based on Sub-section (b), a requirement that NIRB compile a report on the adequacy of the monitoring program and on the ecosystemic and socio-economic impacts of the project.*

Finally, the NLCA legally requires responsible government agencies and departments to continue to fulfil their responsibilities for monitoring and data collection:

*12.7.4 Responsible government agencies and departments shall continue to fulfill their responsibilities for monitoring and data collection. Any monitoring responsibilities assigned to NIRB shall not be a duplication of those functions.*

*12.7.5 Any monitoring program established for a project under Section 12.7.1 shall be designed so as to avoid duplication of duties and to facilitate coordination of monitoring activities, and may, in addition to any other relevant matters, provide for the variables to be monitored and the program specifications.*

The NIRB Report makes no reference to and gives no consideration to any of these provisions of the NLCA addressing ongoing monitoring by the proponent, NIRB itself, or Government.

### Conclusion

The failure of the NIRB Report to give consideration to mandatory provisions of Article 12 of the NLCA provides a foundation for declining to accept the Report and referring it back to NIRB to consider terms and conditions which should be attached to any project approval.

### C. Precautionary Principle

The Board's decision (see NIRB Report at page 50) to apply a "*higher and more stringent*" standard of the precautionary principle in the NIRB Report without notice to the parties is a procedural error.

The EIS Guidelines required application of the "*precautionary approach*" and define the precautionary principle in fairly conventional terms:

*"Where there are threats of serious irreversible damage, lack of full scientific certainty must not be used as a reason for postponing cost-effective measures to prevent environmental degradation".*

However, in its Report at Section 1.6.2, pages 49-51, the Board acknowledged that it generally applied a "*more stringent and protective version*" of the precautionary principle to the assessment of ecosystemic effects. The Board further indicated that, if it concluded that "*a higher standard of the precautionary principle*" is required, it would require a higher standard of evidence. The Board applied this higher standard, but does not precisely define what this "*more stringent*" standard requires. It does indicate that it will require evidence of "*positive and preventative actions*" that will be taken to ensure that "*measures proposed to limit or reduce the potential for adverse impacts are highly protective and do not require evidence of impact before they are triggered.*"

In its conclusions with respect to impacts on wildlife and caribou, the Board indicates that “the highest and most protective version of the precautionary approach is called for”. The Board states as follows:

*“The Board recognizes the efforts put forward by the Proponent and collaborating parties for the development of the proposed Wildlife Mitigation and Monitoring Program Plan and associated commitments, however, the Board stresses that any impact to caribou in this circumstance would be considered unacceptable. Given the uncertainties noted above and the acknowledgement that caribou populations adjacent to the project area cannot sustain any additional pressures at present, the proposed monitoring and adaptive management approaches do not go far enough to satisfy the Board that the Project can proceed as proposed without causing unacceptable effects”.<sup>5</sup>*

There are a number of deficiencies reflected by this determination. Firstly, the Board has unilaterally shifted the definition of the precautionary principle without notice to any of the parties. Shifting the standards that must be met for project approval is a challengeable procedural error.

From an evidentiary point of view, there was no evidence before NIRB that “caribou populations adjacent to the Project area” would “sustain any additional pressures at present”. There was no evidence that this Project, taking into account the monitoring and mitigation programs developed for caribou protection, in collaboration with the governmental agencies that have responsibility for the management and conservation of caribou, would result in any significant impact or “additional pressures” on “caribou populations adjacent to the Project area”. Every effort was made by Sabina, and each of the responsible agencies, to develop caribou protection measures to mitigate against this result. The NIRB conclusion on this point was made without any evidentiary foundation.

As noted above, if NIRB felt that additional monitoring was required by the proponent, by NIRB itself, or by Government, to address any of NIRB’s perceived “uncertainties”, that should have been addressed by NIRB under the provisions of Section 12.5.5(g) and Part 7 of Article 12.

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<sup>5</sup> NIRB Report, p. 187

As discussed in more detail below, the Board fails to give appropriate consideration of the proposed Wildlife Mitigation and Monitoring Plan (WMMP), including its provisions for adaptive management. The passage from the NIRB Report refers to “*unacceptable effects*”. However, no “*unacceptable effects*” are identified in the Report - and this is because the WMMP was developed in collaboration for the very purpose of mitigating any “*unacceptable effects*”.

## V. INUIT SUPPORT FOR THE PROJECT

On May 25, 1993, the Inuit of the Nunavut Settlement Area, the Government of the NWT (GNWT) (succeeded by the Government of Nunavut (GN)) and the Government of Canada signed the NLCA. The NLCA addressed the Aboriginal rights and title of approximately 17,500 Inuit living in 27 communities in central and eastern NWT, covering over 2,000,000 square kilometres of land and adjacent marine areas, representing approximately 20 percent of Canada's landmass. The agreement incorporated the determination of the boundary between Inuit, Dene and Métis claims in the NWT, and vested Inuit with ownership of 350,000 square kilometres of land - including lands in the Project area.

Article 26 of the NLCA requires that an IIBA must be negotiated with the Designated Inuit Organization prior to commencement of any major development project. As noted above, the KIA is the Designated Inuit Organization for the Kitikmeot region of its Nunavut Settlement Area. The NIRB review process (as reflected in the NLCA) acts as a planning process to provide a comprehensive review of projects before they can proceed to the next stage of regulatory approvals. While it is open to proponents and Inuit to finalize agreements at any time before commencing a major development project, the NLCA contemplates that IIBAs would follow the issuance of project certificates.<sup>6</sup> The IIBA may include any matter connected with the Project that could have a detrimental impact on Inuit or that could reasonably confer a benefit on Inuit, on a Nunavut Settlement Area-wide, regional or local basis.<sup>7</sup> Matters considered appropriate for Inuit benefits as set out in Schedule 26-1 are detailed and extensive, specifically addressing key matters such as Inuit training, preferential hiring, business opportunities for Inuit, Inuit environmental and wildlife concerns, implementation and enforceability, and information flow and interpretation including liaisons between Inuit and proponent regarding project management and Inuit participation and concerns.

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<sup>6</sup> See for example section 26.3.2, "An IIBA shall be consistent with the terms and conditions of project approval, including those terms and conditions established pursuant to any ecosystemic and socio-economic impact review."

<sup>7</sup> See section 26.3.1 of the NLCA, "An IIBA may include any matter connected with the Major Development Project that could have a detrimental benefit on Inuit, on a Nunavut Settlement Area-wide, regional or local basis. Without limiting the generality of the foregoing, the matters identified in Schedule 26-1 shall be considered appropriate for negotiation and inclusion within an IIBA."

Where projects take place on Inuit Owned Lands, project proponents are also required to obtain surface tenures from the Inuit landowner in order to carry out operations. Inuit tenures for a long term mine project are generally in the form of a Commercial Lease and include detailed provisions respecting fees, reclamation bonding, environmental protection and reporting and consultation with the Inuit landowner throughout the project life.

The Back River Project is substantially located on Inuit Owned Lands of which the KIA is the Inuit landowner.

A. KIA Support for the Back River Project

Sabina has worked extremely hard with the KIA towards achieving their support of the Project, and as part of this endeavor engaged in intensive consultations with the Kitikmeot communities and organizations. The NIRB Report recognizes the extensive efforts made by Sabina to work in a respectful and collaborative manner to meet the requirements of the four-year environmental assessment review process, and to reach a consensus on the Project with the KIA.

In KIA's presentation to NIRB at the public hearing, KIA President Stanley Anablak confirmed the importance of mining development in providing opportunities for Inuit, for Inuit businesses, and for youth, confirmed KIA support for the Back River Project and confirmed *"any remaining environmental issues can be managed through conditions in the NIRB certificate"*. The following are excerpts from the KIA presentation at the public hearing:

*"KIA supports responsible mining in the Kitikmeot region.*

*KIA sees mining development in an important -- as an important opportunity for Inuit, for our businesses, and our youth. We have found Sabina easy to work with, and it has been very -- has been willing to listen to our concerns and our response. We know that Sabina has worked hard to develop this NIRB application and work with all the parties present today."*

*"... KIA is the designated Inuit organization under the Nunavut Land Claims Agreement for this region. We are the -- we are the owner of large parts of the surface lands on which the Sabina mining operations will take place. KIA is also designated under NLCA Articles 6, 20, and 26 of the Nunavut Land Claim Agreement.*

*If NIRB recommends approval of this project to the responsible minister, and the project goes forward, KIA and Sabina will have to negotiate long-term land tenures, wildlife, and water compensation agreements and an impact benefit agreement. These agreements are legally required and an essential part of the social licence for the proposed mine."*

*"KIA has a broad mandate to act for the betterment of the Kitikmeot Inuit, and we take this responsibility very seriously."*

*"KIA is committed to ensuring that Inuit receive financial benefits from this project. Sabina's final EIS predicts Inuit benefits including -- jobs, training, contracting, and other opportunities for Kitikmeot Inuit."*

*"The KIA Department of Lands and Environment and Resources has been in the lead on KIA efforts to ensure that Sabina's plans do not threaten the land, water, or wildlife in the project area."*

*"We believe from our review of the submissions from other parties in this NIRB process that has a -- that a thorough review of Sabina's projects has been completed. In KIA's view, any remaining environmental issues can be managed through conditions in the NIRB certificate as suggested by KIA, the regulatory process, and its adoptive management approach which includes Inuit."*

*Madam Chairperson, I am pleased to confirm KIA's support for the Sabina Back River Project subject to the KIA requirements."<sup>8</sup>*

Following this introduction, KIA staff members summarized the extensive participation of KIA throughout the environmental assessment process, the remaining environmental issues to be managed through conditions in the NIRB certificate, the regulatory process, and the adaptive management approach which includes Inuit. The KIA enlisted a number of professional specialists to assist them in the review of the FEIS including specialists on wildlife, geotechnical engineering, water quality, fish and fish habitat, air quality, socio-economics, and Traditional Knowledge.<sup>9</sup> KIA's Lands Department emphasized its positive working relationship with Sabina:

*"The KIA's participated fully and to maximum capacity throughout the Nunavut Impact Review Board process. The KIA and Sabina have a positive working*

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<sup>8</sup> Transcript, Volume 3, pp. 627-630

<sup>9</sup> During the review process, the KIA submitted approximately 207 IRs which were responded to by Sabina



relationship. Sabina has been receptive and cooperative in addressing the KIA's concerns to date."<sup>10</sup>

KIA also acknowledged that discussions on the IIBA and related KIA agreements would continue in future:

*"Future KIA matters. Though there have been progressive technical discussions with Sabina, there are several key project components not yet in place. This includes the Inuit Impact Benefit Agreement, compensation agreements out of the Nunavut Land Claims Agreement, land tenure or lease agreement, and the Nunavut Water Board water licence. The KIA anticipates ongoing discussions with Sabina on these matters. In closing, while several technical issues remain, the KIA is confident that remaining issues will be resolved by continuing discussions with Sabina..."<sup>11</sup>*

In response to the KIA presentation, Bruce McLeod, President and Chief Executive Officer for Sabina confirmed that Sabina looks forward to concluding all required agreements with the KIA:

*"Sabina understands and respects that the Kitikmeot Inuit Association has a special interest as the manager of Inuit-owned lands and is specifically responsible to protect the land, the water, and the wildlife on behalf of the Kitikmeot Inuit beneficiaries. We're looking forward to continuing positive discussions through the development of the required comprehensive suite of agreements, including a long-term land tenure agreement, the water and wildlife compensation agreement, and, of course, the Inuit Impact Benefit Agreement."<sup>12</sup>*

At the close of the public hearing, KIA reconfirmed that following the detailed assessment of the Project by KIA's team of external expert technical reviewers as well as its own consultations with Inuit of the Kitikmeot Region, subject to completion of an IIBA and the commitments made by Sabina during the assessment process, KIA supports the Project proceeding to the permitting and regulatory approval stage:

*"We need jobs for our youth and other Inuit who have skills and a desire to work in the mining industry. KIA and the Kitikmeot Corporation have business interests active in the mining industry and will expect contracting opportunities. Direct financial benefits for KIA will also be part of our negotiations. Madam Chair, Board, even though there is more work to be done, NIRB must make a decision. We urge you to*

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<sup>10</sup> Transcript, Volume 3, p. 631

<sup>11</sup> Transcript, Volume 3, p. 641

<sup>12</sup> Transcript, Volume 3, pp. 655-56

*carefully review the record in these proceedings and to capture all the commitments made by Sabina in the Board's decision. KIA has made some recommendations in its submissions, and we hope the NIRB will also give them careful consideration. KIA remains optimistic about the potential for the Back River Project. We urge the NIRB to approve the Sabina project and recommend to the responsible minister that it move on to the regulatory stage.<sup>13</sup>"*

B. Kitikmeot Community Support for the Back River Project

Support for the Project was also expressed by the Kitikmeot communities. This support was built via an extensive community engagement program. During the public hearing representative delegates from the Kitikmeot and NWT communities were further and fully apprised of the technical details of the project, potential risks and proposed mitigations, and had an opportunity to ask questions of Sabina and regulatory authorities and consider the adequacy of those responses.

During the public hearing, at the end of the community roundtable sessions, the Board Chair asked for each community to summarize their views and issues about the Project. Seven Kitikmeot communities, which included Elder and youth representatives, as well as the Bathurst HTO provided considered and careful remarks which reflected overwhelming regional support for the Project. What follows are excerpts of the closing statements from community representatives, with links to the transcripts should the Minister wish to review the statements in full.<sup>14</sup>

Community of Cambridge Bay: *"Okay, let's keep the community consultation going, you know, continuing and community involvement. But, you know, I -- on behalf -- I'm sorry to say that there is nobody else here but me and Beverly on behalf of the HTO that, you know, having heard over -- over the couple of years of me being on the Board and, you know, ongoing meetings with Sabina and the HTO, you know, I -- I am -- I am prepared to support what you're going after. ... and, like, you know, I'm always thinking about the caribou, you know, and -- you know, that, like, I -- when I -- when I go hunting, I know -- if I go hunting on Victoria Island, I know I'm going after the Dolphin & Union herd. Up to today, you know, doing surveys, working with the Government of Nunavut department of environment, and up to now, our -- our herd - caribou herd is on the stable side, but we are working on a management plan. We are in the final stages where the plan of --*

<sup>13</sup> Transcript, Volume 6, pp. 1358-60

<sup>14</sup> See <ftp://ftp.nirb.ca/02-REVIEWS/ACTIVE%20REVIEWS/12MN036-SABINA-BACK%20RIVER/02-REVIEW/10-FINAL%20HEARING/08-TRANSCRIPTS>

*management plan for the Dolphin & Union herd caribou on Victoria Island. And we also did a management plan on -- on the muskox a couple of years ago. And, you know, I don't even want to go muskox hunting anymore 'cause they're really far. So -- but, you know, they -- they are -- they are declining too, our muskox herd, so ... But, you know, like I said before, I'm not going to stop at a caribou herd and ask, you know, What herd are you from? You know, I have no time for that. But, you know, I know that we have at least -- at least nine different herds in Nunavut and NWT and a few others around Canada. And from the information that I got over the past ten years, all the herds are declining. But to -- you know, on behalf of the Ekaluktutiak Hunters and Trappers Organization, you know, I want to continue working with you, and, you know, let's keep the community consultation ongoing and also the community involvement. Thank you."*<sup>15</sup>

Community of Kugluktuk: *"In terms of the Kugluktuk Taliqas [phonetic], we are in favour of the mining company going forward to create employment for our young people. And, as well, we have conditions so that you -- as long as you respect the policies that we put forth, we will respect your work in terms of mining in the area, but we also have to work together..."*<sup>16</sup>

Community of Bay Chimo: *"And we say "Yes"."*<sup>17</sup>

Community of Gjoa Haven: *"As you know, Gjoa Haven, one of them, the biggest problems in Gjoa Haven is that we don't have a lot of jobs, and for that reason alone, Gjoa Haven is in favour of Sabina starting the mine impact review. A few concerns we have are obviously for the caribou, that it will not affect the caribou and the environment. And so we would hope that KIA and the Government of Nunavut will make sure that the policies and procedures set in place is followed and that we won't have a repeat of what happened in the Northwest Territories. One more thing is that we would encourage Sabina to send a representative to our schools in our community, to encourage kids to stay in school and maybe show them the opportunities that are available to them if they should just stay the course in school and work on getting a good education and maybe making them aware of all the good possibilities that are out there. Thank you, Madam Chair, and we support this process, thanks."*<sup>18</sup>

Community of Taloyoak: *"We have received a lot of information while sitting here in this hearing. The members from Taloyoak we have a little bit of concern with regards to the land because they will be working on; so once the mine is closed, they will be cleaning it up. And also -- and also our main concern was caribou herd. Perhaps once the mine is closed, after a few years, they will be going back to -- to that area or perhaps they will*

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<sup>15</sup> JIMMY HANILIAK, Community of Cambridge Bay, NIRB Final Hearing File No. 12MN036 Transcript, April 30, 2016, pp. 1321-1324

<sup>16</sup> LUCY TAIPANA: Community of Kugluktuk, NIRB Final Hearing File No. 12MN036 Transcript, April 30, 2016, pp.1324-1326

<sup>17</sup> EILEEN KAKOLAK, Community of Bay Chimo, NIRB Final Hearing File No. 12MN036 Transcript, April 30, 2016, p. 1326

<sup>18</sup> PATRICK ARENDSE, Community of Gjoa Haven, NIRB Final Hearing File No. 12MN036 Transcript, April 30, 2016, p. 1327

*have a different route. So I cannot tell you at this time if we supported it or not, but we wanted you to consider, for example, it's very, very expensive for food in Cambridge Bay because from here on, everything is going -- the cost of our groceries is going higher and higher. Today, we are not relying on -- we are relying on funding, income, and we have bills, like power and other utilities. For that reason, I would like to support that we -- our younger generation, the young people, they have to have income. They have to make money. They have to earn money to survive and to support their family. So therefore, we are supporting Sabina to open a mine. And also I would like to make other comments. We will be observing you, and we will be expecting to have a consultation from time to time. KIA, Kitikmeot Inuit Association, is representing the communities in our region, but I would like to make it clear that we are supportive of Sabina. Thank you."*<sup>19</sup>

*Community of Kugaruuk: "A few days ago, I have made a comment in regards to I have never experience with the mining companies. I was invited to Sabina at the time. They want me to visit the site. I accept it. That was my first time experiencing and observing what's going on in on the site. I have seen something that I have never seen before. It was news to me. I have never seen any kind of mine. They also told us they will be hiring Inuit from surrounding communities in our region. The reason I supported that is because I want our younger generation to have jobs, to have employment, employment and training. They promised to hire younger people from the communities in our region. For that reason, and also as soon as I saw this, I supported it. And also I would like to thank the Board for -- ever since I have been sitting here, I have understand the people from Yellowknife area. Once they have made their presentation, I understand that their land and wildlife have been damaged and also freshwater, the lakes and fish. Right now, they are -- it seems as though they are not being heard by the companies that are mining in their region. I would like to thank them all. I really appreciate hearing about the history of mining in the region. And then I got a vision of the future. It made me think about the delicate balance of nature and that everything in nature could be impacted by development, and then on the other hand, I heard from Sabina that they will be developing on pristine land and that they will handle the chemicals that they use in a proper way and that they would store them in the right way and that there will be employment opportunities for everyone. I believe what the company is saying about their intentions of using the land in a way that is acceptable to us. Thank you. And for that reason, we say we agree that development happens."*<sup>20</sup>

*Bathurst HTO: "I wouldn't mind if Sabina went ahead with their mining. You know, at least we would have something there to look forward to and be at home. Like the Elders say, You have to be careful though with what you do. Just be respectful for what is around you."*<sup>21</sup>

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<sup>19</sup> JOE ASHEVAK: Community of Taloyak, NIRB Final Hearing File No. 12MN036 Transcript, April 30, 2016, p. 1328

<sup>20</sup> BARNABY IMMINGARK: Community of Kugaruuk, NIRB Final Hearing File No. 12MN036 Transcript, April 30, 2016, p. 1328

<sup>21</sup> Transcript, Volume 6, p. 1353

NIRB did not quote any of the above statements of support, instead giving great focus to the one Inuit dissenting voice (quoting this negative statement in the Executive Summary and two other instances).

Much of the discussion during the public hearings focused on the Bathurst caribou herd and concerns from the NWT communities that there was potential risk of impacts on Bathurst caribou from the Project. However, the Project activities are located outside of the range of the Bathurst caribou herd, and at a considerable distance from its calving and post-calving areas. The distance of the Project from Bathurst caribou was referenced in Lutsel K'e closing statements:

*"The Bathurst caribou site, it's quite a ways from where the mine is going to be. I hope they really watch that. Like they say, they get the satellite collar. It would be good if they have it every month, twice a month, so they know how farther they are when they're heading back to the calving ground and going back south."*<sup>22</sup>

At the end of the Community Roundtable portion of the NIRB public hearing, an Elder from Wekweètì (NWT) acknowledged that given the location of the Project, the views of Kitikmeot residents should be prioritized:

*"But today, today we were -- I mean, like, we were -- but sometime we watch what we say, and sometimes be careful of what we do. And sometimes we -- of how the mining company work and also the -- there are times that whatever we hear here will be passed on to our people back home. What is it that we can do of how we can make a agreement to make sure that our environment will not be contaminate -- the water, the wildlife. That is more important, more important to us aboriginal people. We know that we rely on one -- one wildlife that we depend on if that is ever distinct [sic]. So to -- so but all those here, we want to make sure that we're not going to say "No". We're not going to say "No" to your mine. It will be up to you. If you want to agree to it, by all means do so. But we are here to support each other, and also that if they're going to keep their promise but once -- once the land is destroyed or contaminated, and it's going to affect people that are close to that -- close to the mine. So if anything, it's getting a little out -- not little out of hand. If anything, it's about supporting each other through the community consultation.... We know how things are in our area. There are times that -- and sometimes we are at home, but you people live in this area. But then if you are pretty pleased with the mine, it will create jobs and also the proponent to make sure that they always do a community consultation, communicate with the -- consult with the communities*

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<sup>22</sup> Transcript, Volume 6, pp. 1341-1342

constantly and also to minimize the impact on the environment. The tailings should be taken care of. The open pit should be -- should be done the way it should be done. The winter road and the marine laydown. And also we have heard of everything that is -- that they did already, that the Sabina did a good presentation, and then but as an Elder, when you sit at a table, you know, like we have to respect the Elders and have another lengthy meeting. And I know that the Elders are here for so long, but -- so we should, you know, watch the Elders, to take care of the Elders, but we are not here to tell you guys what to do; so if you want to support the mine, do so. If you going to minimize the impact on the environment, then do."

All of the above reflects significant support for the Project by the residents and communities of the Nunavut Settlement Area. This support was not given appropriate weight or consideration by the NIRB.

## VI. SOCIOECONOMIC BENEFITS

### A. Regional Project Benefits

Mineral resource development is important to Canada and to Nunavut. The development of mining projects in the West Kitikmeot region has potential for positive far reaching impacts for the government and constituents of the Nunavut territory and the Northern region as a whole. Kitikmeot is the only region of Nunavut that does not currently have any current producing mines. The Project will create significant socio-economic benefits in the Kitikmeot region and in Nunavut. If the mineral resource is not developed, the potential effects and predicted benefits will not be realized.

According to reports published by the Nunavut Bureau of Statistics in December 2014, 53.1% of Kitikmeot residents were recipients of Nunavut social assistance in 2013.<sup>23</sup> Expenditure on social assistance was also up 10.8% from 2012-2013 to 2013-2014 and 40% between 2010-2011 and 2013-2014. The unemployment rate for Nunavut was at 14.5% in May 2016.<sup>24</sup> This Project can help address these issues through immediate job creation and would support the longer term creation of up to 600-800 direct jobs at the mine site with spinoff employment and economic benefits for Inuit, Nunavummiut and other residents of Canada.

Nunavut and the Kitikmeot Region are in need of investment, employment opportunities, and business opportunities. The Project would provide significant regional and Inuit socio-economic benefits including:<sup>25</sup>

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<sup>23</sup> See <http://www.stats.gov.nu.ca/en/Social%20assistance.aspx>.

<sup>24</sup> See <http://www.stats.gov.nu.ca/Publications/Monthly/Labour%20Force%20StatsUpdate,%20May%202016.pdf>

<sup>25</sup> The economic impact model presented in the FEIS was based on Sabina's economic analysis in its report entitled "43-101 Feasibility Study Technical Report for the Back River Gold Property, Nunavut" dated June 22, 2015 which had a tonnage rate of 6,000 tonnes per day ("6KFS"). The 6KFS had included development of the George property area, while the Project as defined for the FEIS excludes development of the George property area. In the FEIS, it is assumed that production from George would be replaced by mining additional resources in the Goose property area. On October 29, 2015, Sabina filed a report entitled "43-101 Technical Report for the Initial Project Feasibility Study on the Back River Gold Project, Nunavut", which had a tonnage rate of 3,000 tonnes per day ("3KFS"). The



- capital expenditures of over \$1 billion;
- total operating expenditures of approximately \$1.9 billion;
- GDP contributions during operations of approximately \$263 million to the Kitikmeot Region, \$482 million to Nunavut as a whole, and \$2.6 billion to Canada;
- mineral royalties of approximately \$165 million;
- training, employment and business opportunities for Inuit people, to be agreed under the IIBA;
- An estimated 347 *total* person-years of employment in Nunavut during Construction (which includes direct, indirect, and induced employment) and 2,928 *total* person-years of employment in Nunavut during Operations (which includes direct, indirect, and induced employment).

In the seven years that Sabina has operated Back River as an exploration project, it has already provided significant benefits to Inuit in the form of direct employment and contracts to Inuit owned companies. For example, in 2013 the project had 58 Inuit employees in Nunavut (30% of approx. 200 total employees - \$1,654,590.00 gross payroll value) and in 2014 15 Inuit employees (50% of approx. 30 total employees - \$339,201.00 gross payroll value).

These opportunities for socio-economic benefits will significantly increase with the Project moving forward both currently and in the future but will be foregone if the Project is not allowed to proceed.

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3KFS was completed to assess a lower initial construction capital scenario for the Project. Both the 6KFS and the 3KFS demonstrated positive economic results for the Project.



B. Certainty of Socioeconomic Benefits

It is clear on the evidence provided to NIRB that the Project, if it proceeds, would deliver significant and lasting positive socio-economic benefits to Nunavut and to the Kitikmeot communities.<sup>26</sup>

However, NIRB questioned the certainty of these socio-economic benefits with reference to anecdotal evidence at the public hearing from participants from the NWT and the question of whether promises of socio-economic benefits could be relied on without adequate oversight and accountability:

*"With respect to the potential of the Project to deliver positive socio-economic benefits in the Kitikmeot region, the Board heard clearly from the experiences shared by several of the participants from the Northwest Territories that reliance on such promises without adequate oversight and accountability is not sufficient to ensure that the predicted socio-economic benefits are delivered and also that the potential for adverse effects are minimized."*<sup>27</sup>

The NIRB Report also refers to "*empty promises*"<sup>28</sup> in relation to mining projects in the NWT. These references were not based on any proper or reliable evidence, are not accurate, and do not take into account the Nunavut context, as further described in the following sections of this Summary.

(i) *Nunavut Land Claim Agreement Framework for Socio-economic Benefits*

The NIRB Report fails to distinguish or take into account the significant differences between the legal framework for socio-economic benefits in the NWT from that in Nunavut. NIRB failed to recognize that the NLCA requirement that proponents enter into IIBAs prior to commencing projects addresses the issue of ensuring that promises of socio-economic benefits are subject to Inuit agreement, oversight and accountability in Nunavut.

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<sup>26</sup> Chairperson's Forward, p. 5, and Executive Summary, p. 18

<sup>27</sup> NIRB Report, p. 18

<sup>28</sup> NIRB Report, p. 5

There is no such general legal requirement for impact benefit agreements in the NWT, which was emphasized by KIA in its Closing Remarks to the NIRB delivered by Executive Lands Director Paul Emingak:

*"KIA notes the comments made by the Yellowknives Dene First Nation. Inuit and First Nations from the NWT all face the challenges that come with providing for our people, ensuring that our youth have opportunities in improving the lives of our beneficiaries. We have to balance these challenges with our need to protect all cultural lands and wildlife, and we all know this is not easy. But in KIA's experience, the best way to achieve those goals is to work together, and mining offers important opportunities that we cannot ignore. That means encouraging responsible mining while ensuring environmental protection. And as our president indicated earlier this week, KIA is ready to work with Sabina. We are confident this company will keep its promises. KIA has all the tools necessary to deal with any situation where Sabina's performance falls short of our expectations. The situation for Inuit association in Nunavut with a mandate based on Nunavut land claims agreement is simply different from experience of the Yellowknife Dene First Nation. We wish them well in settling their own land claims..."<sup>29</sup>*

The NLCA IIBA requirement addresses the need for oversight and accountability to ensure socio-economic benefits to Inuit.

As well, the NIRB Report is deficient in failing to recognize that the Project is primarily situated on Inuit Owned Lands. This means that, before the Project can commence, in addition to an IIBA it would require a surface land lease from the KIA which will provide for rental income to the Inuit, address reclamation bonding requirements, as well as environmental oversight and accountability with respect to the use of the Inuit Owned Lands.

In addition, Crown royalties from the production of minerals by the Project will flow through to the Nunavut Tunngavik Incorporated (NTI). Again, the ability of the Inuit, under the NLCA, to ensure delivery of socio-economic benefits from the use of IOL and from the development of mineral resources is clear.

In summary, the NIRB Report does not give appropriate consideration to the Nunavut and NLCA framework when referring to anecdotal statements from NWT individuals.

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<sup>29</sup> Under Part V(A) above, the socioeconomic benefits to be secured under an IIBA for the Project are listed.

(ii) *Reference to NWT Socioeconomic Matters*

Based again on anecdotal information provided by participants at the hearings, the NIRB Report suggests that the experience in NWT raises uncertainty respecting socio-economic benefits with respect to the Project. The NIRB did not request or consider any official and reliable evidence on this issue.

Indeed, recent experience in the NWT provides an example of the significant benefits that production mining can provide. The direct and positive benefits of mining to NWT Indigenous communities and groups are confirmed by the publicly-available Annual Reports of the GNWT under the Ekati, Diavik and Snap Lake Socio-Economic Agreements, “Communities and Diamonds” (the Communities and Diamonds Reports), which focuses in particular on potential impacts on small local communities (Behchokq, Detah, Gamètì, Łutselk’e, Ndilo, Wekweètì, and Whatì - or SLCs).<sup>30</sup> The Communities and Diamonds Reports also reflect information from North Slave Métis Alliance where available.

The Communities and Diamonds Reports are publicly available but were not requested or considered by NIRB - which reached important conclusions on unsubstantiated and anecdotal evidence.

The 2015 Communities and Diamonds Report includes many positive conclusions respecting the interaction of the Diamond mines with the SLCs:

- *The mining industry has provided employment and economic opportunities for businesses and residents across the NWT. Since the first diamond mine began production in 1998, employment has increased, residents are less reliant on income assistance, education levels have improved, and businesses have seen significant benefits. In 2014, the three operating diamond mines contributed over 3,200 person-years of employment and contributed over \$653 million to Northern businesses, of which, about 33% were to Northern Aboriginal businesses.*<sup>31</sup>

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<sup>30</sup> See [http://www.assembly.gov.nt.ca/sites/default/files/td\\_28-182.pdf](http://www.assembly.gov.nt.ca/sites/default/files/td_28-182.pdf)

<sup>31</sup> 2015 Communities and Diamonds Report, p. 12.

- *[Income assistance] cases dropped significantly around the time the mines started and while the average number of cases has increased in recent years, pre-mine levels have not been reached.<sup>32</sup>*
- *There has been a consistent effort on the part of the GNWT and its partners, including the mining industry and the Mine Training Society, to help people become aware of the value of education. The mining industry in particular has done a great deal to highlight economic opportunities and link education to employment. Companies have offered Northern students incentives to stay in school and pursue education through scholarships, training programs and summer employment. Strong partnerships between government, industry and training providers continue to help raise education levels in the NWT.<sup>33</sup>*
- *As illustrated in Figure 9, employment trends in the SLCs show that employment is higher than it was before the diamond mine start-ups whereas the other NWT communities trend has been relatively stable.<sup>34</sup>*
- *In the SLCs, despite yearly fluctuations, the unemployment rate has decreased significantly since mine start-ups... It is likely that the presence of the mines, as well as the increase in education levels, were contributing factors to the changes in the unemployment rate... As shown in Figure 11, in the SLCs the participation rate has increased from below 50% to above 60%, which means that more people are working or looking for work.<sup>35</sup>*
- *Resource projects, such as the diamond mines, provide the GNWT with a significant portion of corporate income tax (CIT), fuel tax, and property tax revenues and the projects' employees provide payroll tax and personal income tax revenues. In 2014-15, diamond mines contributed \$44 million to CIT, fuel, property and payroll tax revenue out of an aggregate total of \$122 million. The contribution from diamond mining companies grew 11% from the previous year. The GNWT collects all resource revenues, including royalties from the diamond mines. On an accrued basis, the GNWT collected a total of \$63 million in 2014-15, but this is shared with the federal government and Aboriginal organizations. As of April 1, 2014, the GNWT collects all NWT resource revenues and shares with Canada and Aboriginal organization signatories to the Northwest Territories Land and Devolution Agreement... For 2014/15, resource revenue collected was distributed among nine Aboriginal organizations that were signatories to the Devolution agreement. The total \$6.3 million shared was allocated in accordance to the agreed-to formula based on population and cost of living factors.<sup>36</sup>*

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<sup>32</sup> 2015 Communities and Diamonds Report, p. 18

<sup>33</sup> 2015 Communities and Diamonds Report, pp. 19-20

<sup>34</sup> 2015 Communities and Diamonds Report, p. 21

<sup>35</sup> 2015 Communities and Diamonds Report, pp. 22-23

<sup>36</sup> 2015 Communities and Diamonds Report, pp. 48-49

In summary, the NIRB Report, in suggesting there has been uncertainty in relation to socio-economic benefits arising from mining in NWT, was not based on any reliable evidentiary base, and did not reflect the additional legal framework for securing Inuit benefits from this Project and others in Nunavut.

C. Relevant Terms and Conditions/Commitments Recommended to NIRB by Parties and Agreed to by Sabina

For the Minister's convenience, attached at Appendix B is a listing of the terms and conditions and commitments that were recommended during the NIRB hearing by KIA, GN, NSMA and/or GNWT and agreed to by Sabina that are relevant to the topic of socioeconomic effects. We request that the Minister encourage NIRB to give full consideration to these suggestions.

## VII. CARIBOU

The protection of caribou from any effects of the Project is of paramount concern to Sabina and to all parties, including the KIA (as the representative of Inuit in the Kitikmeot Region), the GN, and the GNWT. Each of these representative organizations undertook extensive and detailed review of the Project proposals for monitoring the movements and locations of caribou, and for the commitments to mitigation measures including early warning systems, adaptive management, and triggers for shutting down operations that could disturb or influence caribou.

The support of these parties to the caribou protection measures is reflected in the following passage from the NIRB Report:

*"Within its concluding statements during the Final Hearing, the KIA noted that it was satisfied with commitments included, and to be included, within Sabina's revised WMMPP and their ability to protect caribou in proximity to the mine site. The GN indicated during its concluding statements that based on the treatment of its recommendations related to wildlife management measures throughout the Review of the project proposal, it would be in support of the Project and that further collaboration should address issues moving forward. The GNWT noted that the Project, as proposed within the updated WMMPP and through additional commitments made throughout the Final Hearing, represents a reduced risk to the Bathurst caribou herd and that it was pleased with the adjustments made within the revised WWMP to extend collar monitoring and mitigation to the Beverly caribou herd; however, noted that appropriate planning should take place in the event that range shifts occur."*<sup>37</sup>

Despite the satisfaction with Sabina's caribou protection measures expressed by these parties, the NIRB Report indicates that the monitoring and adaptive management approaches "do not go far enough to satisfy the Board".<sup>38</sup> In reaching this conclusion, the NIRB Report suggests there is "uncertainty" but does not identify any specific predicted effects on caribou - nor does the NIRB Report suggest any additional mitigation measures.

As noted previously, there are two caribou herds of potential relevance to our Project - the Bathurst herd and the Beverly/Ahiak herd (termed the Beverly in this document).

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<sup>37</sup> NIRB Report, p. 182

<sup>38</sup> NIRB Report, p. 187

- The annual range of the Bathurst herd is shown on the map attached as Appendix C to this submission. As indicated on the map, it is important to note that the Goose Property area and the Marine Laydown Area are located outside of the Bathurst range and that caribou migrating in this range would have no interaction with the Project (as the winter road is not constructed during the period when caribou are present). The active Project facilities are located approximately 160 km from the edge of the core calving range and approximately 80 km from the edge of the core post-calving range.
- With respect to the Beverly herd, the Project is located within the migrating range of the Beverly herd - but approximately 145 km away from the edge of its core calving range and 165 km away from the edge of its core post-calving grounds (which are acknowledged as the areas of greatest potential risk to caribou). The Project footprint is approximately 1/37,000<sup>th</sup> of the Beverly herd summer range and 1/66,000<sup>th</sup> of the total Beverly herd range.

As described in further detail in section (A) below, caribou management is an area with overlapping jurisdiction between GN and GNWT. In its Report, the NIRB fails to recognize and give appropriate weight to the regulatory and NLCA requirements and regional framework which protects caribou in the NWT and Nunavut.

Should the NIRB issue a Project Certificate for this Project, Sabina expects that the Project Certificate will require a NIRB-approved Wildlife Mitigation and Monitoring Plan (WMMP) and Wildlife Effects Monitoring Plan (WEMP). In section (B) below, the company provides further details with respect to the detailed and extensive commitments under the WMMP and WEMP, developed in consultation and collaboration with the KIA, the GN, and the GNWT to ensure the Project will not have an adverse effect on caribou. The WMMP and WEMP provide for extensive and intensive monitoring of caribou movement, to identify triggers for mitigation measures, including the staged cessation of any mining activities that could affect caribou if they were to approach the mine site, and to continue to work with those parties to review and revise these plans through adaptive management in response to actual circumstances. Each of the KIA, the GN and the GNWT confirmed to NIRB that they were satisfied with the measures committed to by Sabina in these mitigation and monitoring plans.

## A. Territorial Caribou Management Framework

### (i) *Government of Nunavut*

In Nunavut, the NLCA outlines a co-management approach to wildlife. Responsibility for management of caribou and their habitat is shared among several levels of government, Inuit organizations, land and resource boards established under the NLCA, and wildlife co-management organizations such as the Regional Wildlife Organizations (RWOs) and Hunters' and Trappers' Organizations (HTOs). In particular, the GN works with the Nunavut Wildlife Management Board established under the NLCA, and participates in the land use planning processes of the Nunavut Planning Commission, as well as in environmental impact assessments by the Nunavut Impact Review Board. Some of the caribou herds in Nunavut are transboundary, and therefore the GN also works with authorities and stakeholders in these neighbouring jurisdictions.

The *Wildlife Act* (Nunavut) establishes a regulatory regime for management of wildlife and habitat in Nunavut in a way that implements NLCA provisions on wildlife, habitat and the rights of Inuit in relation to wildlife and habitat. It acknowledges Inuit rights and other treaty rights, provides for licencing to harvest wildlife, and governs proper conduct on the land.

At the policy level, GN's *Draft Nunavut Caribou Strategy Framework* (March 2010)<sup>39</sup> identifies several challenges and uncertainties with respect to caribou, and sets out a Vision, six Guiding Principles for caribou management decisions, and five key components of the strategy. Each key component is made up of several objectives, supported by actions. The GN's strategy sets out several objectives and policy statements under each of these components, along with actions that the GN will take to further those policies, including ensuring the right policies, programs, resources and legislative tools are in place to support good decision making to manage and protect caribou; and promoting wise use of caribou and

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<<http://www.gov.nu.ca/sites/default/files/Draft%20NU%20Caribou%20Strategy%20Framework%20March%202010.pdf>>



sustainable harvesting, particularly for meeting the basic needs of Inuit as defined in the NLCA.

(ii) *Government of NWT*

The GNWT was an active participant in the NIRB review of the Project.

Management of barren-ground caribou in the NWT is a collaborative process involving governments, co-management boards, Aboriginal governments and organizations, and communities. Several co-management boards have been established under land claim agreements for the Inuvialuit, Gwich'in, Sahtu and Tlicho settlement areas. There are also three caribou management boards established with authorities in jurisdictions outside of NWT, to manage transboundary herds.

The GNWT has historically been the management lead for the Bathurst herd. The GNWT collaborates with the GN in surveys to determine the status and distribution of some shared caribou herds, including the Bathurst and Beverly herds.

At the policy level, GNWT's Barren-ground Caribou Management Strategy 2011-2015<sup>40</sup> builds on its previous strategy. The vision is to "ensure caribou remain to sustain present and future generations of NWT residents forever." The goal is to maintain the numbers of each caribou herd within its natural range of variation.

In its Final Written Submission, the GNWT summarized results of surveys of the Bathurst herd in June 2015 which showed a rapid decline in population to approximately 19,769 and outlined a number of conservation and management measures (including harvest restrictions and the closure of harvest in the NWT) in cooperation with the GN and Inuit and Indigenous organizations in Nunavut and the NWT.

The GNWT has noted that herd-specific work is underway on range planning for the Bathurst caribou herd, which will describe how the Bathurst caribou range will be managed over time

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<sup>40</sup><[http://www.enr.gov.nt.ca/sites/default/files/strategies/2011-2015\\_barren-ground\\_caribou\\_management\\_strategy.pdf](http://www.enr.gov.nt.ca/sites/default/files/strategies/2011-2015_barren-ground_caribou_management_strategy.pdf)>.

and help prepare for any future changes to habitat. Sabina has been an active participant in the creation of the range plan. GNWT is leading that collaborative process. A structured decision making approach is being used to explicitly investigate trade-offs in social, cultural, economic and ecological values associated with a range of approaches to managing disturbance on the range. Thresholds of acceptable change related to disturbance will be investigated through this process, which will also identify key indicators that can be tracked over time to monitor progress of plan implementation. The Bathurst Caribou Herd Cooperative Advisory Committee is a requirement of the Tlicho Agreement. Once established, it will develop a long term mechanism for management of the Bathurst caribou herd that will address all issues of concern related to the herd including harvest, predator control and habitat management. Member organizations, which include representation from all Aboriginal user groups, are currently reviewing the Terms of Reference for this group.

Until a long term management plan for the Bathurst herd can be developed, GNWT is working through the co-management processes outlined in the Tlicho Agreement and the NWT *Wildlife Act* to implement interim management actions (2016 to 2019) that will support reversal of the Bathurst herd's decline and promote an increase in the number of breeding females in the herd.

On December 15, 2015 the Tlicho Government and GNWT-ENR submitted a joint *Proposal on Caribou Management Actions for the Bathurst Herd: 2016-2019* to the Wek'èezhì Renewable Resources Board (WRRB). Actions being considered include options for harvest management, establishment of a community-based predator management approach, and continued monitoring of the Bathurst herd. On May 26, 2016, the WRRB determined that a total allowable harvest of zero shall be implemented for all users of the Bathurst caribou herd within Wek'èezhì for 2016 to 2019. The WRRB recommended compliance monitoring by community monitors and wildlife officers, as well as increased communications and public education programs. Additionally, the WRRB recommended the implementation of the Tłı̨chǫ Government's community-based wolf harvesting project and the timely completion of a wolf feasibility assessment.

The recent approach of the GNWT with respect to Dominion Diamond's Ekati Jay Pipe expansion (approved by GNWT on May 19, 2016) is illustrative as to how responsible development can proceed within this overall caribou protection framework. The Jay Pipe Project is located within a key migratory corridor for the Bathurst Caribou herd. In order to mitigate potential residual effects of the Jay Pipe Project on caribou so that they are not significant, the Mackenzie Valley Environmental Impact Review Board (MVEIRB) sets out a suite of caribou-specific measures in its February 2016 report. These included requirements that Dominion improve the design and use of roads, minimize and manage dust, use the rest of the Ekati site to offset the Project's remaining cumulative impacts to caribou, and use Traditional Knowledge more effectively in caribou research. While the Back River Project is not located within a key caribou migration corridor (and as such is in an area of lower sensitivity for caribou) and would be a much smaller mine than Ekati/Jay Pipe, the mitigation and monitoring measures committed to by Sabina meet or exceed the relevant measures that have been required by GNWT in relation to the Jay Pipe Project.

**B. Back River Project-Specific Caribou and Wildlife Protection**

**(i) *Summary of Wildlife Effects Monitoring Plan (WEMP)/Wildlife Mitigation and Monitoring Plan (WMMP)***

Sabina worked with the KIA, GN and GNWT, and others over a period of four years to develop the WMMP, and the WEMP which Sabina has committed to implement if the Project proceeds. Each of these organizations confirmed to NIRB that Sabina had worked very respectfully and constructively with them, up to and including during the public hearings. Each of these organizations indicated to NIRB that Sabina had revised the WMMP and the WEMP to address their concerns, with respect to both monitoring and mitigation, and with respect to ongoing review and adaptive management of these plans.

Both the KIA and GN advised the Board that, after very careful and thorough consideration, they were satisfied with the commitments made for the protection of caribou in the WMMP and the WEMP, along with the ongoing commitment of Sabina to continue to work in collaboration with them and to use adaptive management and revision of each of these plans.

The GNWT also noted that the Project would have no impact on the Bathurst caribou within its current range, and was satisfied with the WMMP and the WEMP along with continuing review and adaptive management.<sup>41</sup>

Details of the WMMP respecting monitoring and mitigation for caribou include:

- Setting goals to ensure the Project does not negatively impact the long term viability of the Bathurst and Beverly caribou herds;
- Monitoring to trigger mitigation, including all available types of monitoring:
  - Monitoring of seasonal ranges of caribou;
  - Near real-time monitoring of collars;
  - Active monitoring by on-site caribou monitors;
  - Incidental observations of caribou approaching the site;
  - Motion triggered wildlife cameras;
  - Over the horizon monitoring;
- Triggers for adaptive management:
  - The trigger distance for adaptive management will be 14 km or greater;
  - Staged reduction in outdoor Project activities (such as blasting) if caribou approach within specified distances from the Project site; and
  - Mitigation for range shifts.

The WMMP and WEMP integrate Traditional Knowledge.<sup>42</sup> Importantly, the incorporation of Traditional Knowledge will occur throughout all stages of the Plans, including identification of mitigation measures, monitoring study design, data collection, and follow-up programs to obtain feedback. One example where the Project's WMMP was directly informed by community input and TK includes a series of staged Project shutdown procedures that aim to reduce Project interactions with caribou during sensitive periods. These procedures focus primarily on the calving and post calving periods, as these were noted to be particularly sensitive periods for caribou by the public and through Traditional Knowledge. The WMMP

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<sup>41</sup> NIRB Report, p. 182, and GNWT evidence in the Transcript

<sup>42</sup> WMMP, p. 9

also addresses the possibility of large numbers of caribou returning to the Project area at some point in the future, which was another concern raised by the public and through Traditional Knowledge. Furthermore, the Project's design utilizes winter access roads (rather than all-season roads) that preferentially cross large lakes, which helps further address public concerns related to caribou. This design choice reduces the potential for disruption to the movement of caribou and other wildlife during summer movements; minimizes loss and degradation of vegetation due to physical clearing; reduces deposition of airborne dustfall; and reduces surface compaction.

While the Project is not located within any caribou calving or post-calving areas, with these additional enhancements (which were presented to the NIRB) Sabina has, overall, the most stringent caribou protection measures applicable to any Northern project.

All of these monitoring and mitigation measures will ensure caribou are not disturbed in their migration paths or activities if they approach the Project site. Adaptive management addresses on-the-ground experience to ensure the measures are effective.

(ii) *Summary of Submissions and Presentations Concerning Caribou Protection*

During the NIRB public hearings, Sabina continued to refine the WMMP and WEMP based on feedback from the GN, the GNWT, the KIA, Kitikmeot communities, NWT groups, participants in the NIRB process, and made a number of additional commitments to further enhance the WMMP. A list of these additional commitments were provided to the NIRB as Exhibit 92 and 93, and Sabina is currently updating the WMMP to reflect these additional commitments.

At the end of the public hearing, Sabina understood that the KIA, GN and GNWT were all satisfied with the commitments made under the WMMP, particularly with respect to monitoring and mitigation relating to caribou. Subject to continuous review and consideration of these monitoring and mitigation measures, and revision of the measures based on adaptive management, each of the KIA, the GN and the GNWT, the leading organizations for caribou protection and management, confirmed to NIRB that they were satisfied with these measures designed to prevent any effect on caribou.

As noted above, the NIRB Report summarized the satisfaction of these agencies with the WMMP as follows:

*“Within its concluding statements during the Final Hearing, the KIA noted that it was satisfied with commitments included, and to be included, within Sabina’s revised WMMPP and their ability to protect caribou in proximity to the mine site. The GN indicated during its concluding statements that based on the treatment of its recommendations related to wildlife management measures throughout the Review of the project proposal, it would be in support of the Project and that further collaboration should address issues moving forward. The GNWT noted that the Project, as proposed within the updated WMMPP and through additional commitments made throughout the Final Hearing, represents a reduced risk to the Bathurst caribou herd and that it was pleased with the adjustments made within the revised WWMP to extend collar monitoring and mitigation to the Beverly caribou herd; however, noted that appropriate planning should take place in the event that range shifts occur.”<sup>43</sup>*

No party at the end of the public hearing suggested that the Project was likely to cause significant adverse impacts. Parties expressed “concerns” or “uncertainty” – but monitoring and mitigation – including adaptive management – is designed to address uncertainty. As stated in the Report, the NIRB themselves acknowledged that there is little overlap with either herd’s range on the Project area and no overlap on either herd’s calving and post-calving grounds. The NIRB did not have evidence that the Project would have a negative effect on caribou.

#### I. KIA

In its detailed Final Written Submission, KIA representatives identified a number of issues that had not been fully resolved prior to the public hearing. Each and every one of these suggestions by the KIA was agreed to and committed by Sabina, as reflected in the Table of Commitments presented by the KIA to NIRB in Exhibit 92 on the final day of the hearing, and so each of these issues was resolved at the public hearing:

*“The KIA would be satisfied with the following: Sabina commits to providing a more detailed description of activities with reference to what equipment will be operating and how often during the different stages of a staged reduction in project activities during the next Wildlife Mitigation and Monitoring Plan update. This will include a quantitative description of the noise produced by*

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<sup>43</sup> NIRB Report, p. 182.

*these activities and the area over which continuous noise thresholds for caribou will be exceeded.”*

*“The KIA would be satisfied with Sabina committing to provide additional detail on a plan for cessation of outdoor activities should the core range for calving and post-calving overlap the project area in the same year in which the core range shift occurs. This information should be presented in the next Wildlife Mitigation and Monitoring Plan update.”*

*“The KIA would be satisfied if Sabina commits to decreasing the decibel levels used to calculate the distance the caribou must be from blasting prior to explosion detonation during calving and post-calving and a level during all other seasons. ”*

*“The KIA would be satisfied if Sabina commits to developing an adaptive management plan in coordination with the KIA to manage caribou access to the tailings storage facility if caribou are observed to be drinking from the tailings water.”*

*“The KIA would be satisfied if Sabina commits to increase the visual observation distance trigger for enhanced mitigation for caribou around roads from 250 to 500 metres.”*

*“The KIA would be satisfied if the KIA and the Government of Nunavut will review the annual Wildlife Effects Monitoring Plan Program report each year and if an effect on wildlife is suspected or if there is a change in planned project activity, the Wildlife Mitigation and Monitoring Plan will also be reviewed and updated as needed.”<sup>44</sup>*

## II. Government of Nunavut

The GN has jurisdictional responsibility with respect to wildlife and wildlife habitat, environmental protection, archaeological and cultural matters, and with respect to socio-economic matters such as education, health, social services and community development. The GN was an active participant throughout the environmental review process. The GN filed a detailed Final Written Submission respecting the Project on March 7, 2016.

In its initial testimony at the public hearing, GN confirmed that it had provided detailed comment on the monitoring and mitigation measures proposed for caribou in the WMMP. The GN acknowledged that the revised WMMP *“has taken progressive steps forward”*. However,

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<sup>44</sup> Transcript, Volume 3, pp. 635-637

the GN identified a number of their issues which remained unresolved. In particular, the GN requested that the WMMP be revised to strengthen mitigation measures for caribou in all seasons, require the proponent to collaborate often and early with the Government in the planning process, and provide more technical details about the regional monitoring program.

The Project is located well outside of the core calving and post-calving areas defined by the GN in its recent submissions to the Nunavut Planning Commission in respect of its ongoing development of the Draft Nunavut Land Use Plan. During the NIRB hearing, there were comments made by reviewers that they were concerned about what mitigation would be applied if these calving or post calving grounds moved to interact with the Project at some point in the future. In response to these comments, Sabina made additional commitments to be applied to the WMMP Plan, including:

- As requested by KIA and GN, Sabina committed to the immediate cessation of outdoor activities in the event that caribou monitors ever observe calving cows or cows with young calves near site during the calving or post-calving season.
- As requested by the GN, should collar data ever indicate that the core calving or post calving area has moved to overlap the Project site, Sabina committed to shutdown outdoor activities for the duration of the calving and post-calving period when caribou are in the Project area.

During the course of the public hearing, the issues of the GN relating to caribou monitoring and mitigation were resolved with Sabina, as reflected in a Joint Submission filed by the GN and Sabina as Exhibit 96 on the last day of the hearing. As reflected in Exhibit 96, Sabina agreed to various commitments including:

- revising the WMMP to provide more technical details with respect to cumulative effects/regional monitoring;
- the cessation of Project activities in the event that the core calving or post-calving ranges of the Bathurst or Beverly caribou herds ever overlap the Project site (it is



very important to note that the calving and post-calving ranges of the Bathurst and Beverly caribou herds do not overlap the Project site);

- taking into consideration the potential of caribou presence when planning outdoor construction activities during the period July 26 to August 31; and
- developing criteria and procedures governing the deterring of wildlife from blast zones.

In its closing statement to NIRB, the GN confirmed its support for the Project as follows:

*"This has been a productive meeting, and the Government of Nunavut thanks the proponent for the numerous discussions it had with our representatives and its efforts to resolve various outstanding issues. We are pleased to report that some of these concerns have been potentially resolved, either through commitments from the proponent or through agreed-upon recommendations to the Nunavut Impact Review Board for suggested project certificate terms and conditions.*

*The Government of Nunavut has, jointly with the proponent, provided submissions that identify which of our recommended terms and conditions as originally presented in written submission to the Board, are being withdrawn or modified, and those that remain unchanged from that written submission. We will finalize this before the close of the hearing today. We trust the Board will give appropriate reflection and consideration to this submission in light of all stakeholders' interests in this project. I would like to reiterate our statement of support from our presentations and indicate that, based on the Government of Nunavut's review and the treatment of our recommendations, we would be able to support this project."<sup>45</sup>*

### III. GNWT

With respect to the Bathurst herd, in its Final Written Submission, Summary of Recommendations, the GNWT stated:

*"GNWT acknowledges that Sabina's removal of the George Property from the Back River Project as outlined in the FEIS means that the annual range of the Bathurst herd as determined by analysis of collaring data does not overlap either geographically with the Project Development Areas of the Goose property and Marine Laydown Area nor seasonally with the winter road between the two sites. GNWT agrees that the project as it is now proposed represents a reduced risk to Bathurst caribou of*

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<sup>45</sup> Transcript, Volume 6, pp. 1366-1367

*experiencing negative impacts from the Back River Project; however, GNWT maintains that appropriate contingency planning in the event that range shifts occur along with robust caribou mitigation measures are key to ensuring that impacts to the Bathurst herd and the Beverly herd remain not significant. It is for this reason that GNWT has focused this preview primarily on sections of the FEIS that elaborate on mitigation and monitoring of impacts to caribou."*

As indicated in its presentation at the public hearing,<sup>46</sup> the GNWT was satisfied that outstanding concerns set out in its Final Written Submission were met by Sabina with respect to:

- extending monitoring and mitigation to the Beverly herd;
- concerns relating to collar data lag time - mostly addressed by (1) active monitoring, (2) early detection buffer of 14 km, and (3) use of monitoring towers and blinds to monitor more immediate distances for incoming caribou - with good potential for use of cameras; and
- reducing the number of animals to trigger mitigation.

During the hearings, and in response to a request by the GNWT, Sabina made commitments to update the WMMP Plan, to expand the trigger distances where management was conducted from 1.5 and 2.5 km to a minimum of 4 km during the calving, post-calving and summer periods. Sabina also committed that all trigger distances would be reviewed and updated based on the outcome of monitoring, as requested by the KIA and GN.

In conclusion, the GNWT stated:

*"While we were quite concerned initially about the monitoring proposed by Sabina, the Government of the Northwest Territories was encouraged by the addition of effects monitoring to the most recent version of the Wildlife Mitigation and Monitoring Plan, including zone of influence, behaviour, and stress hormone testing, and we look forward to engaging with Sabina on development of these programs and application of the results into management processes."*<sup>47</sup>

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<sup>46</sup> Transcript, Volume 3, pp. 673-705

<sup>47</sup> Transcript, Volume 3, pp. 685-686

C. Comments on NIRB determination

Despite the confirmation of the major governmental organizations responsible for caribou management and conservation, and the KIA representing the Inuit, the Board indicated that *“the proposed monitoring and adaptive management approaches do not go far enough to satisfy the Board that the project can proceed as proposed without causing unacceptable effects”*.<sup>48</sup>

There was no evidence before NIRB that, with all of the monitoring, mitigation, and adaptive measures committed to in the WMMP and the WEMP, there would be any significant effects on caribou.

A term and condition of any NIRB project certificate would include a requirement to comply with the WMMP and the WEMP, and to implement regular review and adaptive management. In this way, the “uncertainty” identified by NIRB is addressed through the requirements of contingency planning, early warning triggers, adaptive management, and ongoing review of the monitoring and mitigation measures to ensure protection of caribou. In addition to GNWT and GN, NIRB itself would have a regulatory oversight role with respect to the Project’s interactions with caribou, through the NIRB Monitoring Officer.

In our submission, the Report is deficient in failing to address the requirements under the NLCA for the Board itself to identify any additional monitoring or mitigation measures that would satisfy its concerns. Section 12.5.5 of the NLCA provides, in part, as follows:

*“12.5.5 NIRB shall, when reviewing any project proposal, take into account all matters that are relevant to its mandate, including the following: . . .*

*(g) the monitoring program that the proponent proposes to establish, or that should be established, for ecosystemic and socio-economic impacts.” [Emphasis added]*

As well, Section 12.7.1 specifies that the terms and conditions contained in a NIRB Project Certificate, *“may provide for the establishment of a monitoring program for that project*

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<sup>48</sup> NIRB Report, p. 187

*which may specify responsibilities for the proponent, NIRB or Government".* The provisions of Sections 12.7.2 through 12.7.7 of the NLCA identify the purposes of monitoring programs, the content of monitoring programs, and the identification of which parties, including the proponent, NIRB or Government is responsible for the monitoring. It is submitted that the NIRB Report is deficient in that, while the Board expressed uncertainty with respect to the monitoring and mitigation proposed, and found acceptable by the appropriate organizations and agencies responsible for the management and conservation of caribou, the Board itself had a mandate and obligation to then identify how those uncertainties could be addressed through additional monitoring and mitigation. As noted previously, the NIRB Report does not give any consideration to the provisions of Part 7 of Article 12 of the NLCA.

Sabina also wishes to address the suggestion in the NIRB Chairperson's Forward that the mitigation measures proposed at Back River are unproven:

*"The Board also heard that there remains considerable uncertainty regarding the extent to which efforts to monitor, manage and mitigate any additional adverse effects on caribou would be effective.... Further, although the Board recognizes the considerable efforts and commitments of the Proponent, Intervenor, Community Representatives and participants in the Board's process to developing management, mitigation and monitoring measures to reduce the significance of these adverse effects, as detailed in this report, the Board has also concluded that despite everyone's best efforts, serious questions remain about the extent to which such impacts could be managed, mitigated and reversed given the uncertainties surrounding the effectiveness and adaptability of the proposed measures... Given the precarious situation of the current caribou populations, the Board is not confident that the measures proposed to mitigate effects in response to the presence of caribou in the Project Development Area would be sufficient to prevent lasting and adverse effects, including cumulative and transboundary effects."*<sup>49</sup>

The mitigation and monitoring and adaptive management measures that will be included in the Back River WMMP and WEMP are highly conservative and stringent, but they are generally not novel and incorporate many of the mitigations currently applied at other NIRB-approved Nunavut mines (including Doris North, Meadowbank, Meliadine, and Mary River) as well as in mines in the NWT (Diavik, Snap Lake and Ekati). Each of the KIA, the GN, and the GNWT are very familiar with the established mitigation and monitoring in place at these other projects

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<sup>49</sup> NIRB Report, pp. 5-6

and confirmed to NIRB that they were satisfied with the measures committed to by Sabina in the Back River monitoring and mitigation plans.

With the additional enhancements agreed to by Sabina during the public hearings (which were presented to the NIRB) Sabina has, overall, the most stringent caribou protection measures applicable to any Northern project. We have compiled the following table which provides a high-level comparison:

Mine/Project	On Site Roads	Blasting	Project Site	Aircraft	Winter Ice Road	Calving/Post Calving Measures
Back River Project, NU	★	★	★	★	★	★
Hope Bay, NU	★	★	★	✓	-	★
Meadowbank, NU	★	✓	✓	-	-	-
Meliadine, NU	✓	★	✓	-	-	-
Mary River Project, NU	✓	✓	✓	✓	-	✓
Snap Lake, NWT	✓	-	✓	✓	-	-
Ekati, NWT	★	✓	✓	✓	✓	-

Legend: ★ most stringent/restrictive requirements, ✓ mitigation in place, - not applicable or not available

D. Relevant Terms and Conditions/Commitments Recommended to NIRB by Parties and Agreed to by Sabina

For the Minister's convenience, attached at Appendix D is a listing of the terms and conditions and commitments that were recommended during the NIRB hearing by KIA, GN, NWT Aboriginal groups and/or GNWT (referred to above) and agreed to by Sabina that are relevant to the topic of caribou. We request that the Minister encourage NIRB to give full consideration to these suggestions.

## VIII. ENVIRONMENTAL PROTECTION

In addition to the GN and GNWT, governmental representatives at the public hearings included INAC, ECCC, DFO, NRCan and TC.<sup>50</sup>

The NIRB Report indicates that the Board is “uncertain” that particular components of the environment will be protected. In doing so, the Board’s Report is consistently deficient in neglecting to take into account the existing environmental laws and regulations that will apply to the Project - and which specifically address environmental protection in relation to components such as:

- Tailings and waste rock (the responsibility of the Nunavut Water Board under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (*Nunavut Waters Act*));
- Water quality (the responsibility of the Nunavut Water Board under the *Nunavut Waters Act* as well as Environment Canada (ECCC) under provisions of the *Fisheries Act* and the Metal Mining Effluent Regulations );
- Fish habitat (the responsibility of Fisheries and Oceans Canada (DFO) under the *Fisheries Act*);
- Marine waters (the responsibility of DFO as well as ECC under the *Fisheries Act* and the *Arctic Waters Pollution Prevention Act* and Transport Canada (TC) under the *Canada Shipping Act, 2001* with respect to prevention of pollution from ships).

The “uncertainties” on these issues identified by NIRB can be addressed through terms and conditions attached to a project certificate and through the regulatory process as they have been for other projects. During the environmental assessment process, the federal and territorial government agencies gave detailed consideration to the Project, applying their extensive expertise and experience to issues within their jurisdiction and mandate. They insisted on stringent standards for monitoring and mitigation, particularly with respect to

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<sup>50</sup> Note that Health Canada also participated in the review but did not attend the hearings.

caribou, but for other matters as well. At the end of the public hearing, based on their technical expertise and assessment of the Project, each of the government agencies, and the KIA, confirmed to NIRB that all technical issues within each of their areas of expertise had been resolved satisfactorily for the environmental assessment process, and that the remaining items were of a nature that is appropriate for resolution at the permitting or regulatory phase.

The requirement for a project proponent to comply with environmental laws and regulations of general application is reflected in standard terms and conditions of every past project certificate issued by the Board substantially as follows:

*General regulatory requirements*

- *The Proponent must obtain all required federal and territorial permits and other approvals, and shall comply with the requirements of such regulatory instruments.*
- *The proponent shall take prompt and appropriate action to remedy any occasion of non-compliance with environmental laws and regulations and/or regulatory instruments, and shall report any non-compliance as required by law immediately. A description of all instances of non-compliance and associated follow up is to be reported annually to the NIRB.*
- *The Proponent shall meet with respective licencing authorities prior to the commencement of construction to discuss the posting of adequate performance bonding. Licencing authorities are encouraged to take every measure to require that sufficient security is posted before construction begins.*

In each case where the NIRB Report indicates that the Board is “uncertain” respecting the protection of these components of the environment, the NIRB Report is deficient and challengeable for the following reasons:

- NIRB reaches conclusions which are contrary to the evidence presented - not only the evidence of Sabina, but the evidence of federal and territorial agencies including INAC, DFO, ECCC, NRCan, TC, the GN and the GNWT;

- Each of the above parties, including Sabina, the federal and territorial agencies, and the KIA, conducted detailed reviews of the proposed project and the detailed FEIS of the proponent, with the benefit of both internal and external experience, expertise and analysis;
- Each of the federal and territorial agencies gave evidence that their concerns had been addressed sufficiently for the environmental assessment phase and that the project could proceed to the regulatory phase, where further terms and conditions would be included in any regulatory authorizations, licences, or permits, if issued;
- The NIRB conclusions of “uncertainty” fail to respect the experience, the expertise, the mandates and the responsibilities of regulatory authorities which are responsible for appropriate environmental protection at the regulatory stage:

For NIRB to conclude, for example, that it is uncertain about whether the Project will impact on matters such as water quality, without giving any recognition to the fact that there is an extensive framework of environmental laws and regulations which must be complied with by any project proponent, and which are under the regulatory responsibility of the Nunavut Water Board, and which specifically address the protection of water quality, is unreasonable and challengeable.

#### A. Climate and Methodology (Tailings and Waste Rock)

In its Report, the NIRB flags “uncertainties” with respect to Climate and Methodology (Section 4.2, NIRB Report).

The Board made a factual error when it stated at section 4.2.3 of the NIRB Report that the rock cover for both waste rock piles and the TSF would be “limited to” 5 metres. On Sabina’s evidence provided to the Board, the proposed rock cover for the TSF is to be a minimum of 5 metres.<sup>51</sup> If additional cover material is ultimately required for both the TSF and waste rock

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<sup>51</sup> See Vol. 1, FEIS section 9.7: “Both Umwelt and Goose Main TFs, once they have reached their outflow elevation, will have at least 5 m of water cover which is sufficient to avoid resuspension of tailings.” And Vol. 2, FEIS section 8.7: “the entire tailings surface will be covered, including a zone 25 m



piles to ensure stability, then Sabina would utilize it. The ultimate thickness of the cover will be determined in the final Closure and Reclamation Plan, which will require approval by the Nunavut Water Board should the Project proceed to the licencing phase. The Nunavut Water Board has a high degree of internal technical expertise, including staff members with bachelor and advanced degrees in environmental engineering, hydro geology and water science, and are very familiar with the detailed technical issues associated with mining projects. The thickness of closure covers is a matter that is routinely resolved at the licencing, rather than environmental assessment, stage.

In section 4.2.2 of the NIRB Report, “Views and Concerns of Interested Parties”, the Board failed to acknowledge that at the close of its presentation during the Community Roundtable portion of the NIRB Hearings, Karen Costello, Director of Resource Management, INAC confirmed that,

*“As addressed earlier in our presentation, the department has received commitments and agreement from Sabina on proposed terms and conditions that are being submitted for the Board's consideration on issues that were raised by -- in the department's review. When we developed this presentation, which was a few weeks ago, there was still some issues raised by Indigenous and Northern Affairs Canada that were awaiting confirmation of commitments from Sabina and some that were unresolved. As a result of the board's final hearing process, we have reached agreement on the outstanding issues, and confirmation of commitments from Sabina. So in summary, all matters raised by the department in its review have been addressed to our satisfaction.”<sup>52</sup>*

Further to the Board’s recommendation in section 4.2.4 of the NIRB Report, the Board failed to recognize that Sabina provided detailed information on tailings monitoring and storage in the Arctic environment, utilizing “real world” examples as suggested. Briefly, this evidence can be found in the Record as follows:

- FEIS Appendix V4-3C. Climate Change Approach Memo;

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wide zone downstream of the TSF containment dam. The entire covered surface, whether waste rock or tailings, will receive an NPAG waste rock cover at least 5 m thick. This cover will ensure that the tailings surface will freeze.” And Vol. V2-7G: “This entire covered surface [of the TSF], whether waste rock or tailings, will receive a final non-acid generating waste rock cover at least 5 m thick.”

<sup>52</sup> Transcript, Volume 5, p. 1210

- FEIS Appendix V4-3B. Climate Change Predictions;
- FEIS Appendix V2-7E, Attachment A. Waste Rock Storage Area Thermal Modelling Memo; and
- FEIS Appendix V2-7G, Attachment G. TSF Containment Dam Thermal Modelling Memo.

It is not clear from the NIRB's recommendation what additional evidence would be necessary.

It is noted that the frozen tailings management strategy is substantially the same as the Meliadine Gold Project, Meadowbank Gold Project and the Nanasivik Mine. Sabina is also proposing one of the thickest closure covers when compared to other current Arctic projects - what follows is a table that Sabina has prepared that provides a comparison:

Mine/Project	Latitude	Active Layer Thickness	Waste Rock Cover Thickness
<b>Back River Project, NU</b>	65° 29'	1.3-4.6 m	<b>5 m</b>
Diavik, NWT	64° 30'	5 m	4.5 m
Snap Lake, NWT	63° 36'	~2 m	4 m
Meadowbank, NU	65° 01'	1.5 m	4 m
Ekati, NWT	64° 43'	2.4-5 m	4 m
Meliadine, NU	65° 01'	1-3 m	3 m
Mary River Project, NU	71° 20'	3 m	3 m
High Lake, NU	67° 22'	2-5 m	1-3 m
Nanisivik Mine, NU	73° 02'	0.5-0.75 m	1.25 m

There is also the suggestion by NIRB in section 4.2.4 of the Report as well as the Chairperson's Forward and Section 4.2.3 of the Report that if additional mitigation is required, effects could occur "rapidly". The evidence on the record was not of "rapid change" as suggested by the Board. As explained by Sabina's expert during the hearings, should there be greater than expected impacts on the cover caused by climate change, any potentially acid-generating materials would be stable for a very long time as in this project site and location the rate of oxidation is very slow. On this expert evidence, there would be 15-50 years before there

could even be the potential for adverse impact to the environment which provides for ample time to prevent any effects from occurring (such as adding additional rock to the cover):

*"...we've got an incredible amount of time here before there would ever be any impact or any problem."*<sup>53</sup>

On this expert evidence, the potential mitigation in this situation could include adding additional materials to the cover to ensure that the tailings are not exposed for a long enough period to oxidize.

Again, INAC, KIA and NRCAN did not object or state an alternative view to the assessment of our professional expert witness in this regard and agreed that the detailed design of the cover is an appropriate matter for resolution at the licencing phase.

For the Minister's convenience, attached at Appendix E is a listing of the terms and conditions and commitments that were recommended during the NIRB hearing by KIA, GN, NWT Aboriginal groups and/or GNWT and agreed to by Sabina that are relevant to the topic of tailings and waste rock. We request that the Minister encourage NIRB to give full consideration to these suggestions.

## B. Water Quality

When the NIRB Report indicates that it has concerns with respect to the certainty of whether the ecosystemic integrity of groundwater and surface water quality will be protected, the Board is failing to recognize that the NWB has the jurisdiction and mandate to ensure this protection. The NIRB Report is deficient in failing to take into account that the NWB will fulfill its jurisdiction and mandate to ensure that no water licence would be issued unless the NWB was satisfied that the ecosystemic integrity of waters would be protected. As an example, the issues raised by NIRB in their comments on vegetation (Section 4.10, NIRB Report) are routinely addressed in Closure and Reclamation Plans to be approved at the licencing project phase by the Nunavut Water Board.

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<sup>53</sup> Transcript, Volume 5, pp. 1215-1221

The NIRB Report fails to acknowledge the provisions for the protection of water quality in the NLCA. These include Section 20.3.1 of the NLCA which provides that no project that may substantially affect the quality or quantity of water flowing through IOL shall be approved by the NWB unless the proponent has entered into a compensation agreement with the designated Inuit organization (in this case the KIA) for any loss or damage that may be caused.

The NIRB Report includes several examples where conclusions were reached without regard to the evidence (resulting in a finding of “uncertainty”). As one example, with respect to Hydrological Features and Hydrogeology (Section 4.6, NIRB Report), the NIRB suggests it is probable that a talik would form under the pits. The Tailings Storage Facility was modeled and the results showed that a talik would not form under the Tailings Storage Facility. This modelling was provided in the FEIS, Volume 2, Appendix V2-7G, Appendix G. There was no evidence from any of the parties to the hearing which contradicted this model.

There are also examples of significant factual errors in the NIRB Report relating to the topic of Groundwater and Surface Water Quality (Section 4.7, NIRB Report), including the following:

- The statement by Sabina *“that the methodology for the derivation of the site-specific water quality objective did not follow the CCME guidelines; however, it noted that the evaluation was designed to serve as an assessment threshold and the predicted concentrations of arsenic were well below any threshold for fish, invertebrates, or primary producers”* was corroborated by ECCC. The Board omitted the ECCC support for the use of the preliminary guideline as a threshold, where ECCC stated that *“[the] preliminary [site specific water quality guideline for arsenic] has been developed [...] is appropriate for the environmental assessment stage.”*<sup>54</sup>
- The statement *“The KIA further requested that Sabina provide a discussion on how the exceedances of the CCME guidelines at the end of mine life would alter the conclusions of no residual effects on the freshwater Valued Ecosystemic Component”*

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<sup>54</sup> A. Wilson, ECCC, NIRB Final Hearing File No. 12MN036 Transcript, April 26, 2016, p. 447, lines 20-24

is factually incorrect. Residual effects to the freshwater Water Quality VEC were concluded in the FEIS.<sup>55</sup> The Board omitted reference to the rebuttal by Sabina.<sup>56</sup>

- The statement as presented on page 127, paragraph 3 that ECCC stated a need for sampling to appropriately characterize the receiving environment and the potential impacts from project activities is incorrect. ECCC confirmed that adequate baseline data has already been collected for the effects assessment and the recommendation for additional seasonal samples is to compare against for monitoring purposes.<sup>57</sup>

For the Minister's convenience, attached at Appendix F is a listing of the terms and conditions and commitments that were recommended during the NIRB hearing by KIA, GN, NWT Aboriginal groups and/or GNWT and agreed to by Sabina that are relevant to the topic of water quality. We request that the Minister encourage NIRB to give full consideration to these suggestions.

#### C. Fish and Fish Habitat

Similarly, the NIRB Report is deficient in failing to taken into account that the DFO will fulfil its jurisdiction and mandate in relation to fisheries protection. DFO has the expertise, jurisdiction and the mandate to ensure that impacts to fish and fish habitat are minimized, and to consider plans for offsetting residual impacts, all in accordance with the *Fisheries Act* and its regulations.

With respect to Freshwater Aquatic Environment (Section 4.9, NIRB Report), the NIRB Report expresses "uncertainty" with respect to potential effects on fish and fish habitat and whether there would be sufficient offsetting of impacts. However, in the opinion of DFO these uncertainties should be resolved at the regulatory stage:

*"Fisheries and Oceans Canada notes that two winter roads are proposed to be constructed for the Back Rivet Project; see the inlet picture. Although the proponent has provided some information on the depths of several lakes and ponds along the*

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<sup>55</sup> FEIS, Volume 6, Chapter 4, Section 4.5.4

<sup>56</sup> B. Beall, Sabina, NIRB Final Hearing File No. 12MN036 Transcript, April 25, 2016, p. 133, lines 19-26

<sup>57</sup> A. Wilson, ECCC, NIRB Final Hearing File No. 12MN036 Transcript, April 26, 2016, p. 458, lines 1-9

*proposed winter road, the locations, depths, as well as fish and fish habitat information for all of the proposed water bodies used for winter water withdrawal in support of the winter road construction has not been provided. Fisheries and Oceans Canada recommended that the proponent provide the depths, location, and fish habitat features, specifically overwintering and shoreline habitat, for each water body that will be used as a water source to construct the ice road. Fisheries and Oceans Canada also recommended that Sabina implement all available best management practices to prevent impacts to fish and fish habitat as a result of the construction, operation, and removal of winter ice roads and from the under-ice water withdrawals. This also includes using a fish screen on the water intake pipes. The proponent has agreed with these recommendations, and this technical issue has been resolved to the satisfaction of Fisheries and Oceans Canada."<sup>58</sup>*

*"During the regulatory review phase, Fisheries and Oceans Canada will continue to work with the proponent to determine whether the construction of the water intakes and discharge pipes in Big Lake and Goose Lakes -- sorry -- and other impacted ponds and streams within the project area will require a Fisheries Act authorization. As a result of the uncertainty regarding the requirements for scheduling Umwelt Lake under the Metal Mining Effluent Regulations, Fisheries and Oceans recommended that the proponent continue to work with Environment and Climate Change Canada to determine the regulatory requirements related to the use of Umwelt Lake as a saline water management pond. Fisheries and Oceans Canada also recommended that the proponent continues to work with Fisheries and Oceans Canada, the Kitikmeot Inuit Association, the Kugluktuk Hunters and Trappers Organizations, and the impacted communities to finalize the offsetting plan and develop a detailed fish-out and dewatering plan. The proponent has agreed to our recommendations, and this technical issue has been resolved to the -- sorry -- to the satisfaction of Fisheries and Oceans Canada." Fisheries and Oceans Canada would also like to invite the impacted communities and Elders to provide comments to Fisheries and Oceans on the Bernard Harbour offsetting project."<sup>59</sup>*

In reaching its conclusions, the NIRB Report fails to recognize that the DFO has the jurisdiction and mandate to address the protection of fish and fish habitat before issuing authorizations under the *Fisheries Act*.

For the Minister's convenience, attached at Appendix G is a listing of the terms and conditions and commitments that were recommended during the NIRB hearing by KIA, GN, NWT Aboriginal groups and/or GNWT and agreed to by Sabina that are relevant to the topic of fish and fish habitat. We request that the Minister encourage NIRB to give full consideration to these suggestions.

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<sup>58</sup> Transcript, Volume 5, pp. 1173-1174

<sup>59</sup> Transcript, Volume 5, pp. 1176-1177

D. Marine Environment

With respect to discharges to the marine environment from the desalination plant in the marine laydown area, the NIRB Report fails to consider that the marine waters would be protected by the requirement for compliance with the *Fisheries Act* which prohibits the discharge of any deleterious substance into waters frequented by fish, and the *Arctic Waters Pollution Prevention Act*.

These Acts include provisions that protect the ecosystemic integrity of the marine waters. ECCC has the expertise, jurisdiction and the mandate to ensure that deposits to fisheries waters are not deleterious, and to administer the relevant provisions of the *Fisheries Act* as well as the *Metal Mining Effluent Regulations*.

INAC has the expertise, jurisdiction and the mandate to ensure that Arctic waters are not polluted by waste from industrial operations, and is responsible for administration of the *Arctic Waters Pollution Prevention Act* as well as the *Territorial Lands Act*, as confirmed during the public hearings by Karen Costello, Director of Resource Management, INAC:

*"Yesterday, during the Fisheries and Oceans presentation, the Nunavut Impact Review Board enquired about the regulation of the outfall from the desalination plant at the marine laydown area. At this time, I would like to advise the Board that the deposition of material into Arctic waters will be addressed through an authorization issued by the department under the same instrument that allows the installation of the outfall. We will work with experts at Environment and Climate Change Canada to determine appropriate water quality parameters that will be appropriated into the authorization."*<sup>60</sup>

The appropriate recommendation from NIRB could include requiring the following as a term in any project certificate:

*"Any discharges from the water desalination plant at the marine laydown area shall comply with the requirements of the *Fisheries Act* and the *Arctic Waters Pollution Prevention Act*"; and*

*"Any authorization for the use of Crown land by INAC for the establishment of a marine desalination plant shall include a requirement that any discharges to marine*

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<sup>60</sup>Transcript, Volume 3, pp. 554-555

waters from the desalination plant shall comply with the requirements of the *Fisheries Act* and the *Arctic Waters Pollution Prevention Act*".

The Board's conclusion that *"there is considerable uncertainty in relation to the effects predicted for the proposed saline water discharge at the Marine Laydown Area"* is not consistent with and ignores the CCME (Canadian Council of Ministers of Environment) salinity water quality guideline for the protection of aquatic life. ECCC provided the CCME salinity guidelines to the Board for review, which details the scientific basis of the salinity guideline and supports the assessment that the effluent from the proposed desalination plant is not expected to have effects on fish and other aquatic life in Bathurst Inlet.<sup>61</sup> There was no competing evidence on this point which suggested that there was any "uncertainty" with respect to the potential for environmental effects from this discharge.

INAC, the party that initially raised concerns respecting runoff from the marine laydown area, also confirmed during the public hearing that they had no outstanding concerns following Sabina's detailed submissions on this point:

*"We submitted one technical review comment related to water management at the proposed marine laydown area. We were concerned with the potential for water draining off the site to impact Bathurst Inlet. Sabina provided a more detailed analysis which showed that the quality of water running off of the marine laydown area is unlikely to have a significant impact on Bathurst Inlet; therefore, this issue has been resolved."*<sup>62</sup>

Finally, with respect to the uncertainties flagged by NIRB with respect to shipping, in particular with respect to accidents and malfunctions.<sup>63</sup> TC and the Canadian Coast Guard have the expertise, jurisdiction and mandate to advise on shipping and marine spill response, in accordance with the *Canada Shipping Act* and its regulations, which include numerous specific requirements relating to shipping in the Canadian Arctic and marine spill prevention and response. The applicable Transport Canada and International legal requirements respecting shipping of fuel and other goods within the Arctic are conservative, stringent and protective. The NIRB did not identify any unique features of the Project which would

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<sup>61</sup> Mr. Barry, NIRB, NIRB Final Hearing File No. 12MN036 Transcript, April 27, 2016, p. 528, lines 11-16

<sup>62</sup> Transcript, Volume 5, pp. 1203-1204

<sup>63</sup> NIRB Report, Section 6.2.4



heighten risk in relation to any other project requiring Arctic shipping – the very low number of ships per year for this Project would appear to reduce the risks that NIRB identifies as a concern. However, if the NIRB is of the view that additional protections are required in the circumstances to ensure emergency preparedness, this concern could be fully addressed through terms and conditions. For example, NIRB could include a term and condition that requires Sabina to enhance marine spill response equipment and capabilities, including supporting training of local community members who might assist should spill response be necessary.

For the Minister’s convenience, attached at Appendix H is a listing of the terms and conditions and commitments that were recommended during the NIRB hearing by KIA, GN, NWT Aboriginal groups and/or GNWT and agreed to by Sabina that are relevant to the topic of the marine environment. We request that the Minister encourage NIRB to give full consideration to these suggestions.

## IX. CONCLUSION

For all of the above reasons, it is our view that the Project meets the very high standards for Nunavut project approval. While the Report clearly did not reflect the consensus reached with parties, nor the supportive outcome of the NIRB final hearings, Sabina believes that there are no unresolvable issues presented in the Report.

The uncertainties identified by NIRB can be addressed via the regulatory process. During the environmental assessment, the KIA as well as the federal and territorial government agencies gave detailed consideration to the Project, applying their extensive expertise and experience to issues within their jurisdiction and mandate. They insisted on stringent standards for monitoring and mitigation, particularly with respect to caribou, but for other matters as well. At the end of the public hearing, based on their technical expertise and assessment of the Project, they confirmed to NIRB that all technical issues within each of their areas of expertise had been resolved, and that the remaining items were of a nature that is appropriate for resolution at the permitting or regulatory phase or within the required Inuit agreements.

In the NIRB's consideration of issues such as the effects of climate change on tailings and waste rock storage, the effects on fish and fish habitat in lakes, and the effects of discharges from the desalination plant in the marine environment, the NIRB Report fails to recognize that each of these activities could only be commenced if they were authorized by the appropriate licences, authorizations, or permits, issued by regulatory authorities under Federal or Territorial legislation which contains specific provisions for the protection of the environment. The NIRB Report gives no consideration to whether any of the areas where NIRB finds "uncertainty" can be addressed by setting appropriate terms and conditions, and by reference to the regulatory terms and conditions that will be imposed at the regulatory phase for protection of the environment.

Responsible mining is not just about profit. It is also about protection of the environment, and ultimately helping to make people's lives better not just for now but for the future. Sabina's ethics and commitments to the region and its constituents are a matter of public

record, and our practices have been upheld as benchmarks for other companies. While Sabina has significantly reduced the scope of our 2016 work plan as a result of the NIRB Report, we are keeping our pre-existing commitments to local communities during this time, such as advancing the Bernard Harbour fisheries habitat restoration project in partnership with the Kugluktuk Hunters and Trappers Organization. This is an example of Sabina's deep commitment to the Kitikmeot region and to environmental stewardship.

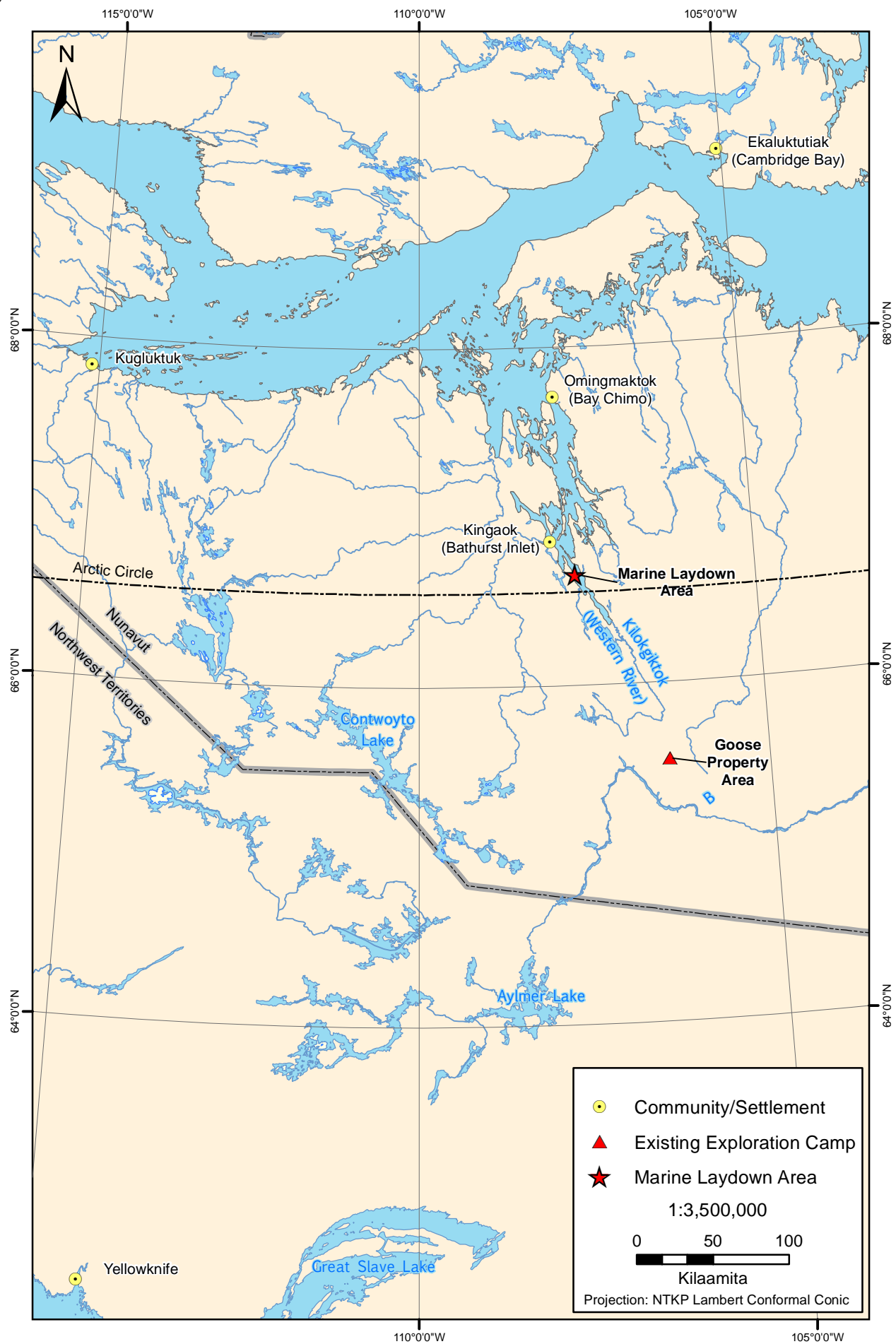
During the years that Sabina has been working in Nunavut, we have raised substantial funds in the capital markets and have invested over \$260 million in the Back River Project. Our investors have believed in Back River and in the regulatory system's ability to fairly and accurately assess mining projects. We believe this NIRB Report could have significant negative effects as to how investors view risk in Nunavut, for this project as well as others.

We emphasize the importance of a timely decision in respect of the Project. Given the seasonality of construction in the Arctic, any further delay will have a negative impact on Sabina's ability to provide benefits to Inuit and to the region.

Sabina wishes to emphasize that it respects the NIRB Board members, staff and their mandate. While we are very respectful of the NIRB process and of the work done by NIRB in completing its Report, for the reasons we have set out in this summary we believe that the Minister should reject the NIRB Report as the Project is in the regional interest. We believe that if the Minister does not reject the NIRB Report pursuant to 12.5.7(d), referring the Report back to NIRB pursuant to 12.5.7(e) for further review or public hearings to permit an opportunity for these deficiencies to be addressed and resolved would be in the best interests of all parties.

We wish to thank you in advance for giving this matter your consideration and we would be pleased to provide any further clarification or details which you may require.

## Appendix A



## Appendix B

**Party-Recommended Project Certificate Terms and Conditions re Socioeconomic**  
(as at close of hearing April 30, 2016)

What follows provides a list of project certificate terms and conditions recommended to NIRB by federal and territorial agencies and the KIA during the April 2016 NIRB public hearings.

<b>Party</b>	<b>Proposed Term &amp; condition #</b>	<b>Relevant IR/TC</b>	<b>Suggested Term &amp; Condition as revised and updated during public hearings</b>
GN	GN-1	GN-1(1)	The Proponent is strongly encouraged to participate in the work of the Kitikmeot Socio-Economic Monitoring Committee along with other agencies and the communities of the Kitikmeot region, and to identify areas of mutual interest and priority for incorporation into a collaborative monitoring framework that includes socio-economic priorities related to the Project, communities, and the Kitikmeot Region as a whole.
GN	GN-2	GN-1(2)	The Proponent is encouraged to work in collaboration with other socio-economic stakeholders including for example, the Government of Nunavut, Indigenous and Northern Affairs Canada, the Kitikmeot Inuit Association, and communities of the Kitikmeot Region, to establish a socio-economic working group for the Project to develop and oversee the Back River Socio-Economic Monitoring Program. The working group should develop a Terms of Reference which outlines each member's roles and responsibilities with regards to, where applicable, project-specific socio-economic monitoring throughout the life of the Project. The Terms of Reference are to be provided to the Nunavut Impact Review Board upon completion, and within one year of issuance of the Project Certificate.

Party	Proposed Term & condition #	Relevant IR/TC	Suggested Term & Condition as revised and updated during public hearings
GN	GN-3	GN-1(3)	<p>The Proponent is very strongly encouraged to develop the Back River socio-economic monitoring program to monitor impacts predicted in the FEIS through indicators presented in the Back River socio-economic monitoring plan. Regional concerns identified by the Kitikmeot SEMC will also be considered for inclusion. Where possible, the Proponent is encouraged to work in collaboration with all other socio-economic stakeholders such as the GN, Indigenous and Northern Affairs Canada, the Kitikmeot Inuit Association, and the communities of the Kitikmeot Region in developing this program, which should include a process for adaptive management and mitigation in the event unanticipated impacts are identified. The Proponent shall produce annual Back River socio-economic monitoring reports throughout the life of the Project that are submitted to the Nunavut Impact Review Board and shared with the wider Kitikmeot SEMC. Details of the Back River socio-economic monitoring program are to be provided to the Nunavut Impact Review Board upon finalization, and within one year of issuance of the Project Certificate.</p>
GN	GN-4	GN-4	<p>The Proponent is encouraged to identify and register all trades occupations, journeypersons, and apprentices working with the Project, as well as to provide the Government of Nunavut with information regarding the number of registered apprentices and journeypersons from other jurisdictions employed at the Project.</p> <p>Related Legislation - The Apprenticeship, Trade, and Occupation Act and Regulations</p>



Party	Proposed Term & condition #	Relevant IR/TC	Suggested Term & Condition as revised and updated during public hearings
GN	GN-5	GN-5	<p>To the extent the sharing of such information is not inconsistent with any Inuit Impact Benefit Agreement with Kitikmeot Inuit Association, the Proponent is strongly encouraged to submit staff schedule estimates to the Nunavut Impact Review Board (NIRB) and to the Government of Nunavut (GN) 6 months prior to each phase of the project (construction, operations, closure). The schedule should, at a minimum, provide a description of:</p> <ul style="list-style-type: none"> <li>o Title of positions required by department and division;</li> <li>o Quantity of positions available by Project phase;</li> </ul> <p>The Proponent is also strongly encouraged to submit additional staff schedule information to the Nunavut Impact Review Board (NIRB) and to the Government of Nunavut (GN) for each phase of the project (construction, operations, closure), as it becomes available. This information includes:</p> <ul style="list-style-type: none"> <li>o Transferable skills, both certified and uncertified which may be required for, or gained during, employment within each position; and,</li> <li>o The National Occupational Classification (NOC) code for each individual position.</li> </ul> <p>The Proponent is encouraged to consult the GN during development of the schedule. A new schedule should be submitted following any significant deviation from original predictions. However, any staff schedule information provided by the Proponent will be consistent with obligations established under the Inuit Impact and Benefit Agreement (IIBA) negotiated with the Kitikmeot Inuit Association (KIA).</p>

Party	Proposed Term & condition #	Relevant IR/TC	Suggested Term & Condition as revised and updated during public hearings
GN	GN-6	GN-7(1) and 7(2)	<p>Provided the sharing of such information is consistent with the terms and conditions of any applicable Inuit Impact Benefits Agreement with the Kitikmeot Inuit Association the Proponent is strongly encouraged to communicate and collaborate with the GN and Nunavut Housing Corporation (NHC) on potential housing initiatives with a view to enhancing employee access to a range of housing options, including homeownership. Initiatives may include, but are not limited to, the provision of financial literacy, financial planning, and personal budgeting training.</p>
GN	GN-7	GN-8	<p>The Proponent is strongly encouraged to work with the Kitikmeot Socio-Economic Monitoring Committee (K-SEMC) to design and implement a voluntary housing survey to be offered to its Nunavummiut employees. The survey should be designed in collaboration with the Government of Nunavut, the Nunavut Housing Corporation and other relevant stakeholders. Non-confidential results of the survey are to be reported to the Government of Nunavut and other members of the K-SEMC. The frequency and content of the survey should be determined by the collaborating parties. Content may include changes of address, housing status (i.e. public/social, privately owned/rented, government, etc.), and migration intentions.</p>

### Proponent Commitments for the Back River Project re Socioeconomics (as at April 30, 2016)

What follows provides a list of commitments made by Sabina to federal and territorial agencies, the KIA, and other Intervenors during the April 2016 NIRB public hearings.

Party	Proposed Commitment #	Relevant IR/TC	Suggested Commitments as revised and updated during public hearings
GN	GN-1	1 (DEIS)	Provided the sharing of such information is consistent with the terms and conditions of any applicable Inuit Impact Benefits Agreement with the Kitikmeot Inuit Association, The Proponent commits to include project-specific data concerning employee community or residence and number of employees that relocated from the year prior (where available, to and from, for Cambridge Bay, Kugluktuk, Taloyoak, Gjoa Haven, and Kugaaruk) in their Socio-Economic Monitoring Program and subsequent annual reports. The details of this process will be captured in the terms of reference for the project specific Back River Socio-Economic Monitoring Committee.
GN	GN-2	2(DEIS)	Through the Back River Project Socio-economic Monitoring Program (SEMP) and annual reporting to NIRB, Sabina commits to socio-economic monitoring throughout all phases of the Project as long as there is a reasonable expectation of Project-related impacts to the socio-economic environment, to the extent the sharing of such information is not inconsistent with the terms and conditions of any Inuit Impact Benefit Agreement with Kitikmeot Inuit Association. This will include temporary closure and care and maintenance phases of the Project. This commitment will be finalized in the Terms of Reference.
GN	GN-3	3.2 (DEIS)	Sabina commits to actions to promote youth being able to make informed choices regarding their career direction, including encouraging youth to stay in school to take advantage of the employment opportunities made available by the Project.

<b>Party</b>	<b>Proposed Commitment #</b>	<b>Relevant IR/TC</b>	<b>Suggested Commitments as revised and updated during public hearings</b>
GN	GN-4	4 (DEIS)	The Proponent commits to provide NOC coding information in their workforce schedule. To the extent the sharing of such information is not inconsistent with the terms and conditions of any Inuit Impact Benefit Agreement with Kitikmeot Inuit Association the Proponent commits to identify and register, with the appropriate GN department, all trades persons and apprentices working within the Project operations. The Proponent will consult with the GN's Department of Family Services Career Development Division to identify current apprentice students for potential training and employment
GN	GN-5	7 (DEIS)	Unless such matters are otherwise addressed in any Inuit Impact Benefit Agreement with Kitikmeot Inuit Association, Sabina will continue to support childcare in the communities through our donations policy and informal visits to assess potential areas of need. Also, Sabina employees will be encouraged to support childcare through volunteering and participation on the associated non-profit boards responsible in each community for the delivery of childcare programming. Sabina is committed to working with the GN and community stakeholders to explore improved or alternative means of addressing potential childcare issues, but does not intend to become directly involved in the provision of childcare services.
GN	GN-6	12 (DEIS)	Sabina will be offering annual influenza vaccinations to all employees and providing education on proper personal hygiene to limit the spread of influenza. All medical incidents or occurrences, including those tied to a rabid animal, will be addressed through the company HS&E policy, where a qualified on-site Nurse/Medic will assess the situation and where necessary consult with our Medical Doctor. All regulatory reporting will be adhered to for compliance.

<b>Party</b>	<b>Proposed Commitment #</b>	<b>Relevant IR/TC</b>	<b>Suggested Commitments as revised and updated during public hearings</b>
GN	GN-7	13 (DEIS)	In the event the pre-employment medicals are required, Sabina will commit to a service fee payable to the Community Health services based on a negotiated fee schedule. Sabina will develop any pre-employment medical screening program in discussion with Nunavut Health Services.
GN	GN-8	14 (DEIS)	The Proponent commits to integrate information and data relating to employee support programs and training through the Back River Socio-Economic Monitoring Program Annual Report, provided the sharing of such information is consistent with the terms and conditions of any applicable Inuit Impact Benefits Agreement with the Kitikmeot Inuit Association.
GN	GN-9	GN-TC-2	The Proponent will communicate to the Government of Nunavut (GN) available information on major changes to Project-related tax estimates on an as-needed basis. This communication will not preclude either party from contacting the other as necessary for other relevant information.
GN	GN-10	GN-TC-3	Sabina commits to keep regional education staff (e.g. the Regional Director of Education) informed of any activities the Proponent has planned, or is requested to participate in, involving community schools.
GN	GN-11	GN-TC-6	Provided the sharing of such information is consistent with the terms and conditions of any applicable Inuit Impact Benefits Agreement with the Kitikmeot Inuit Association, the Proponent commits to integrate information and data relating to employee support programs and training through the Back River Socio-Economic Monitoring Program Annual Report.

Party	Proposed Commitment #	Relevant IR/TC	Suggested Commitments as revised and updated during public hearings
GN	GN-12	GN-TC-9	<p>By February 28th of each year that footprint changes are occurring or that an archaeological permit is requested, the Proponent will provide the GN-DCH a series of maps and tables indicating the current status of all archaeological sites within the Project Development Area.</p> <p>For clarity, the maps are to include the following specifications:</p> <ul style="list-style-type: none"> <li>a) All archaeological sites inventoried in the project development area</li> <li>b) Archaeological sites planned for mitigation – colour coded by year</li> <li>c) Archaeological sites designated for avoidance/protection – shape and colour coded</li> <li>d) The information in points a, b, and c overlaid onto an updated map of the final location of Project infrastructure as it is known.</li> <li>e) The scale of the maps has to be such that the limits of individual infrastructure components are well defined and the location of the archaeological sites within those limits is precise.</li> </ul> <p>The table is requested to include textual descriptions of the map contents and should evolve over time within this annual status report.</p>

## Appendix C

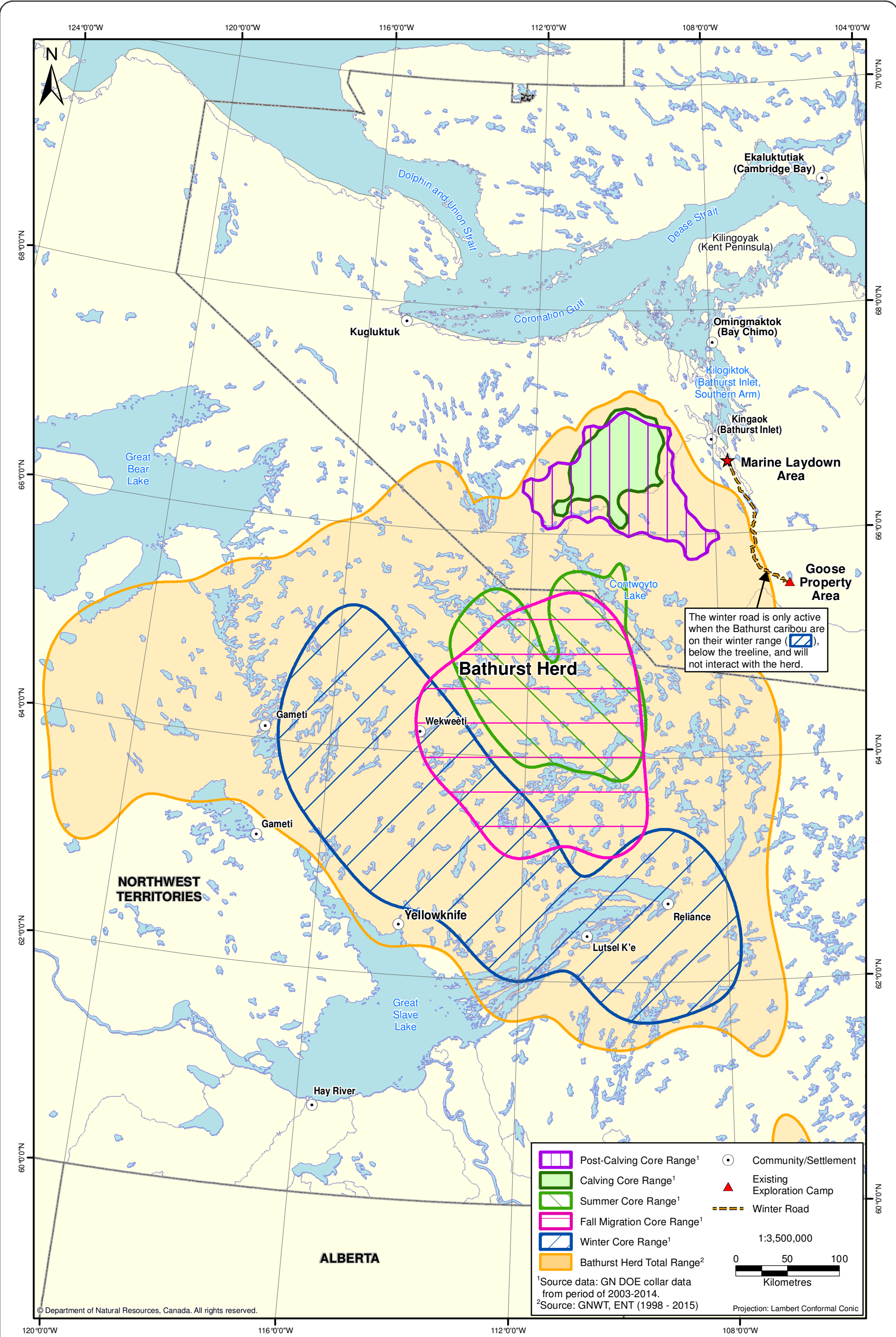


Figure 1

Seasonal and Total Herd Ranges of the Bathurst Caribou

Figure 1



## Appendix D

**Party-Recommended Project Certificate Terms and Conditions re Wildlife**  
(as at close of hearing April 30, 2016)

What follows provides a list of project certificate terms and conditions recommended to NIRB by federal and territorial agencies and the KIA during the April 2016 NIRB public hearings.

<b>Party</b>	<b>Proposed Term &amp; condition #</b>	<b>Relevant IR/TC</b>	<b>Suggested Term &amp; Condition as revised and updated during public hearings</b>
KIA	KIA-2		The Wildlife Mitigation and Monitoring Plan will be updated as needed during the life of the project in conjunction with the KIA and submitted to the NIRB for review. Updates may be triggered by significant changes in the project plan, results reported in the annual Wildlife Effects Monitoring Plan report that indicate changes in conditions that are likely to be biologically meaningful, significant updates to the scientific understanding or methods relevant to wildlife at the project site, or as necessary.

### Proponent Commitments for the Back River Project re Wildlife (as at April 30, 2016)

What follows provides a list of commitments made by Sabina to federal and territorial agencies, the KIA, and other Intervenor during the April 2016 NIRB public hearings.

Party	Proposed Commitment #	Relevant IR/TC	Suggested Commitments as revised and updated during public hearings
KIA	KIA-C9		The Proponent commits to providing a more detailed description of activities, with reference to what equipment will be operating and how often, during the different stages of a staged reduction in project activities in the next Wildlife Mitigation and Monitoring Plan update. This will include a quantitative description of the noise produced by these activities and the area over which continuous noise thresholds for caribou will be exceeded.
KIA	KIA-C10		Sabina will work in conjunction with the KIA to develop a plan for winter road use cessation and/or management in April to protect the spring migration of the Beverly caribou herd to be a component in their land tenure agreement.
KIA	KIA-C11		Sabina commits to developing an adaptive management plan, in conjunction with the KIA, to manage caribou access to the TSF if caribou are observed to be drinking from the tailings water.
KIA	KIA-C12		Sabina commits to increase the visual observation distance trigger for enhanced mitigation for caribou around roads (in Table 6.10-2 of Version H.1 of the Wildlife Mitigation and Monitoring Plan, for fall and winter seasons) from 250 to 500 m.

Party	Proposed Commitment #	Relevant IR/TC	Suggested Commitments as revised and updated during public hearings
KIA	KIA-C13		<p>The Proponent will update the Wildlife Mitigation and Monitoring Plan to include a plan that will be implemented immediately in the event of calving caribou shifting their range to overlap with the Project Development Area.</p> <p>The Proponent will update the Wildlife Mitigation and Monitoring Plan to reflect the following measures in order to identify the presence of an aggregation (group) of caribou calving near the Project site during the calving period, post calving and summer. If a group of greater than 250 caribou are observed by active monitoring within 4 km of the Project site, then staged reduction of helicopter use and heavy vehicle use would be triggered. The threshold for cessation of blasting will be the greater of 4 km, or according to Commitment KIA-C14 of this table. The aggregation group size definition may be updated based on best available science in subsequent Wildlife Mitigation and Monitoring Plan updates.</p>
KIA	KIA-C14		<p>The Proponent commits to decreasing the sound levels as indicated in the Wildlife Mitigation and Monitoring Plan used to calculate the distance that caribou must be from blasting prior to explosion detonation from 108 dB to a level more protective of caribou. These levels will be reduced to 96 dB.</p>
GN	GN-13	GN-TC-11	<p>The Proponent will revise the WMMP to remove remaining areas that refer only to the Bathurst herd and apply all monitoring and mitigation measures (including mitigation for shifts in calving and post-calving range) to both the Bathurst and Beverly caribou herds, except where another commitment refers to a specific herd.</p>

Party	Proposed Commitment #	Relevant IR/TC	Suggested Commitments as revised and updated during public hearings
GN	GN-14	GN-TC-12a	<p>In consultation with the GN, the Proponent shall revise the WMMP to more clearly define the technical specifications and requirements of the proposed collar-based regional monitoring programs designed to monitor Project effects on caribou (i.e., the ZOI monitoring), and to monitor caribou range use for the purpose of mitigation (i.e seasonal ranges use monitoring), including details on required statistical power, sample size, sampling schedule and frequency of data acquisition. Prior to construction Sabina will also update the WMMP to (1) Confirm that data suitable to meet these technical specifications and monitoring needs are available and 2) demonstrate that relevant data sharing agreement are in place with government data suppliers. The revised WMMP shall be submitted to NIRB for review.</p>
GN	GN-15	GN-TC-12b	<p>Sabina will update the WMMP Plan to include a commitment to contribute to cumulative effects/regional monitoring for caribou, grizzly bear, wolverine and/or muskox following proposals from the GN/GNWT to a maximum total combined value, to be determined.</p> <p>Commentary: In Section 7.3.1.5 of the WMMP (April 11, 2016), the reference to limiting the annual contribution for caribou cumulative effects monitoring to either the Bathurst or the Beverly herd will be removed. Contributions may be made to monitoring efforts on both herds in the same year, subject to a maximum total combined value to be determined.</p>

Party	Proposed Commitment #	Relevant IR/TC	Suggested Commitments as revised and updated during public hearings
GN	GN-16	GN-TC-13a	Prior to construction, in consultation with the GN and other relevant parties, the Proponent shall revise the WMMP to address concerns regarding caribou monitoring and mitigation methods as submitted by the GN in its final submission and as further revised and clarified by the commitments made during the NIRB public hearings. The revised WMMP shall be submitted to the NIRB for review and approval.
GN	GN-17	GN-TC-13b	<p>The Proponent will update the WMMP Plan to include reductions of project activities (e.g., planned cessation in above-ground blasting, heavy truck hauling and use of helicopters (except where such activities are required in order to address regulatory compliance or health and safety)) should the core calving or post-calving ranges of the Bathurst or Beverly caribou herds overlap the Project site.</p> <p>The cessation of these activities will be planned for the period of time when the core calving and post-calving distribution of caribou overlaps the project, based on recent years of caribou collar and monitoring data.</p> <p>This planned period will be of sufficient duration to take into account annual variation in the timing and distribution of calving and postcalving caribou interactions with the Project. This plan will be updated with the WMMP Plan in consultation with the KIA, GN and other interested parties.</p>

Party	Proposed Commitment #	Relevant IR/TC	Suggested Commitments as revised and updated during public hearings
			<p>Note to the NIRB:</p> <p>Note that Sabina has already committed to the KIA to provide a full description of any remaining project activities proposed during a planned cessation of above-ground blasting and heavy truck hauling, and to provide a noise model for these activities and to compare this predicted noise to the noise produced by indoor activities only. Sabina has also already committed to updating the proposed mitigation actions in the WMMP Plan in consultation with the KIA, GN and other interested parties.</p>
GN	GN-18	GN-TC-14a	<p>During construction of the ice road, if a bear den is identified by preconstruction monitoring, the Proponent will avoid the den by 1 km.</p> <p>Under special circumstances an exception to the 1 km buffer may be implemented for logistical reasons following consultation with the GN.</p>
GN	GN-19	GN-TC-16	<p>The Proponent will update the WMMP Plan to include the following commitment:</p> <p>Prior to removal or deterrence of raptors, the Proponent will contact GNDOE to discuss proposed mitigation options, as listed in the WMMP Plan, and will obtain the required permit prior to undertaking any activity that can lead to the destruction of raptor nests or the deterring of raptors from nesting sites.</p>
GN	GN-20	GN-TC-17a	<p>To be more protective of muskox, the Proponent commits to updating the WMMP Plan to:</p> <p>(1) Increase the trigger distances for blasting mitigation measures for muskox (table 6.3-1 in the current April 2016 version of the WMMP); and (2) Specify mitigation measures, trigger distances and group size thresholds for the operation of heavy equipment on site roads and aircraft (vertical and horizontal distance buffers).</p>

Party	Proposed Commitment #	Relevant IR/TC	Suggested Commitments as revised and updated during public hearings
GN	GN-21	GN-TC-20c	To the extent possible, and with appropriate mitigation and monitoring in place, the Proponent shall take into consideration the higher potential of caribou presence in the area when planning outdoor construction activities (including site clearing, blasting, and operation of heavy equipment) during the period July 26 to August 31.
GN	GN-22	GN-TC-21	<p>In consultation with the GN and other relevant authorities, the Proponent shall develop criteria and procedures governing the deterring of wildlife from blast zones and relaxation of mitigation measures for animals deemed Project-Tolerant. These criteria and procedures shall, amongst other things, address the list of questions related to deterrence and project tolerant animals presented by the GN in its final written submission (GN comment #13) on the Final Environmental Impact Statement. These criteria and procedures shall be submitted to the NIRB for review and approval prior to construction. For clarity, caribou will only be deterred if their safety is at direct risk. Reference to deterring wildlife from blasting zones will be removed from the blasting management plan (FEIS Volume 7, Chapter 13, Section 7)"</p> <p>Commentary: Draft information was included in the April 11, 2016 WMMP Plan update but further details will be added.</p>
GN	GN-23	GN-TC-22b	The Proponent shall include in the WMMP specific details on additional monitoring and mitigation that will be triggered when large groups of caribou occur near the ice roads.



Party	Proposed Commitment #	Relevant IR/TC	Suggested Commitments as revised and updated during public hearings
GN	GN-24	GN-TC-23a	The Proponent commits to updating the WMMP to include the trigger that should the existing incidental observation program record >5 persons per year using the road for harvesting purposes then the Proponent will implement a more direct monitoring program for persons using the ice road and reported as part of the Socio-Economic Monitoring Report to NIRB.
GN	GN-25	GN-TC-24	In consultation with the KIA, GN, and other relevant parties the Proponent shall develop and implement a vegetation monitoring plan for the winter road that is designed to quantify the potential impacts on vegetation. The plan shall be submitted to the NIRB prior to winter road construction. Findings from these studies will be used to inform reclamation planning as appropriate.
YDFN	YDFN-1		The Proponent will update section 6.10.5.5 of the WMMP, Triggers and Mitigation point 2, to remove the term "predominantly female" and replace it with language that clarifies what mixed groups of caribou will trigger the cessation of heavy trucks. [NOTE: SEE HEARING TRANSCRIPT FOR SPECIFIC WORDING]

## Appendix E

**Party-Recommended Project Certificate Terms and Conditions re Tailings/Waste Rock**  
(as at close of hearing April 30, 2016)

What follows provides a list of project certificate terms and conditions recommended to NIRB by federal and territorial agencies and the KIA during the April 2016 NIRB public hearings.

<b>Party</b>	<b>Proposed Term &amp; condition #</b>	<b>Relevant IR/TC</b>	<b>Suggested Term &amp; Condition as revised and updated during public hearings</b>
INAC	INAC-1	INAC-TC-8 & INAC-TC-9	The Proponent shall revise the Closure and Reclamation Plan to include an adaptive management component that documents proposed monitoring and mitigation measures to ensure long-term containment of the Tailings Storage Facility and Waste Rock Storage Areas. The revised plan shall include detail on the triggers for implementing alternative mitigation options, and shall be submitted to the Nunavut Water Board during the water license application process.

### Proponent Commitments for the Back River Project re Tailings and Waste Rock (as at April 30, 2016)

What follows provides a list of commitments made by Sabina to federal and territorial agencies, the KIA, and other Intervenor during the April 2016 NIRB public hearings.

Party	Proposed Commitment #	Relevant IR/TC	Suggested Commitments as revised and updated during public hearings
INAC	INAC-C4	INAC-TC-6 & INAC-TC-10	<p>The Proponent has committed to undertake an infill geotechnical characterization program to determine the extent of the fractured bedrock contact zone and apply proposed mitigation as necessary. This program should include permeability testing, seepage analysis, and planning for thermal monitoring of the western ridge, where appropriate. The Proponent will provide details of the program, including how the information gathered will be used to establish appropriate mitigation and monitoring measures as part of the Type A Water Licence Application process.</p> <p>Further, where the results of this program show the potential for seepage, the Proponent commits to the establishment of a monitoring program with the capability of determining that contaminants are being contained within the facility. The Proponent shall provide sufficient justification where it is determined that monitoring is not required. The options for monitoring shall be provided for review as part of the Type A Water Licence Application process.</p>
INAC	INAC-C5	INAC-TC-7	The Proponent commits to further thermal modeling to support dam design along critical cross-sections of the Main Dam. This should be presented for review during the Type A Water Licence Application process.

Party	Proposed Commitment #	Relevant IR/TC	Suggested Commitments as revised and updated during public hearings
KIA	KIA-C4	KIA-TC-10	<p>The Proponent commits to test a mixture of tailings and treatment sludges to evaluate the potential for remobilization of arsenic from this material. Tests will be conducted as sludges are produced. The Proponent commits to provide their proposed testing method to the Kitikmeot Inuit Association for review and approval prior to initiating these tests, and will provide the results of the testing in the annual monitoring report that will be submitted as part of the water license requirements.</p>

## Appendix F

**Party-Recommended Project Certificate Terms and Conditions re Water Quality**

(as at close of hearing April 30, 2016)

What follows provides a list of project certificate terms and conditions recommended to NIRB by federal and territorial agencies and the KIA during the April 2016 NIRB public hearings.

<b>Party</b>	<b>Proposed Term &amp; condition #</b>	<b>Relevant IR/TC</b>	<b>Suggested Term &amp; Condition as revised and updated during public hearings</b>
KIA	KIA-1	KIA-TC-19	The Proponent will derive a site-specific water quality objective for arsenic in a way that is satisfactory to both the Kitkmeot Inuit Association and Environment and Climate Change Canada prior to the first technical meeting as part of the Nunavut Water Board water licencing process.

### Proponent Commitments for the Back River Project re Water Quality (as at April 30, 2016)

What follows provides a list of commitments made by Sabina to federal and territorial agencies, the KIA, and other Intervenor during the April 2016 NIRB public hearings.

<b>Party</b>	<b>Proposed Commitment #</b>	<b>Relevant IR/TC</b>	<b>Suggested Commitments as revised and updated during public hearings</b>
INAC	INAC-C1	INAC-TC-1	The Proponent commits to modeling of total metal concentrations, as may be required, to establish appropriate discharge criteria and predict downstream compliance. For parameters not requiring total metals modeling, appropriate justification should be provided. This information is expected for review as part of the Type A Water Licence Application process.
INAC	INAC-C2	INAC-TC-2	The Proponent commits to monitor water quality of the pit sump to validate water quality predictions and implement mitigation should monitoring show that pit walls are a more appreciable source of loading than indicated by current modeling. The Proponent commits to providing details of options for mitigation for review as part of the Type A Water Licence Application process.
INAC	INAC-C3	INAC-TC-3	The Proponent commits to providing additional information on the proposed waste water treatment plant to show that adequate treatment capacity is in place, and that there is sufficient capacity available to address spills, accidents and malfunctions. This should be presented for review during the Type A Water License Application process.



Party	Proposed Commitment #	Relevant IR/TC	Suggested Commitments as revised and updated during public hearings
INAC	INAC-C4	INAC-TC-6 & INAC-TC-10	<p>The Proponent has committed to undertake an infill geotechnical characterization program to determine the extent of the fractured bedrock contact zone and apply proposed mitigation as necessary. This program should include permeability testing, seepage analysis, and planning for thermal monitoring of the western ridge, where appropriate. The Proponent will provide details of the program, including how the information gathered will be used to establish appropriate mitigation and monitoring measures as part of the Type A Water Licence Application process.</p> <p>Further, where the results of this program show the potential for seepage, the Proponent commits to the establishment of a monitoring program with the capability of determining that contaminants are being contained within the facility. The Proponent shall provide sufficient justification where it is determined that monitoring is not required. The options for monitoring shall be provided for review as part of the Type A Water Licence Application process.</p>
INAC	INAC-C5	INAC-TC-7	<p>The Proponent commits to further thermal modeling to support dam design along critical cross-sections of the Main Dam. This should be presented for review during the Type A Water Licence Application process.</p>
INAC	INAC-C6	INAC-TC-11	<p>The Proponent shall revise their Ore and Waste Rock Management Plan to include monitoring that demonstrates contact water (runoff and shallow groundwater) from the Waste Rock Storage Areas is adequately captured and managed. This shall be submitted to the Nunavut Water Board during the water licence application process.</p>

<b>Party</b>	<b>Proposed Commitment #</b>	<b>Relevant IR/TC</b>	<b>Suggested Commitments as revised and updated during public hearings</b>
KIA	KIA-C1	KIA-IR-65, KIA-TC-18, KIA-TC-20, KIA-TC-21, and KIA-TC-22	The Proponent commits to developing the Aquatic Effects Monitoring Program and adaptive management thresholds in conjunction with the Kitikmeot Inuit Association prior to the first technical meeting as part of the Nunavut Water Board water licensing process.
KIA	KIA-C2	KIA-TC-07	The Proponent commits to provide the Kitikmeot Inuit Association with information regarding the construction of the winter ice road including, but not limited to, fill, quarry and borrow sites required for the construction of the winter road for review and approval prior to construction.
KIA	KIA-C3	KIA-TC-09	The Proponent commits to providing the results of the blast hole cutting sampling and testing program along with other geochemical monitoring results in an annual monitoring report. For at least the first annual report, the Proponent will engage a geochemical specialist to review the results and evaluate whether further changes in the monitoring or management activities is required. If such a recommendation is made, the Proponent will update WRMP accordingly. Regardless of whether such a recommendation is made, the WRMP will be updated at the time of water licence renewal.

Party	Proposed Commitment #	Relevant IR/TC	Suggested Commitments as revised and updated during public hearings
KIA	KIA-C8	KIA-TC-23	The Proponent commits to collect additional baseline water quality data from the lakes in the project area during freshet and fall as confirmed by measurements of higher flow prior to construction. The Proponent commits to use this data to update the water and load balance model.

## Appendix G

**Party Recommended Project Certificate Terms and Conditions Re Fish and Fish Habitat**  
(as at close of hearing April 30, 2016)

What follows provides a list of project certificate terms and conditions recommended to NIRB by federal and territorial agencies and the KIA during the April 2016 NIRB public hearings.

<b>Party</b>	<b>Proposed Term &amp; condition #</b>	<b>Relevant IR/TC</b>	<b>Suggested Term &amp; Condition as revised and updated during public hearings</b>
DFO	DFO-1	DFO-TC-1 DFO-TC-2	The Proponent shall engage with Fisheries and Oceans Canada in exploring possible Project specific thresholds, mitigation and monitoring for blasting that would exceed the requirements of Fisheries and Oceans Canada's Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters (D.G. Wright and G.E. Hopky, 1998).

<b>Party</b>	<b>Proposed Term &amp; condition #</b>	<b>Relevant IR/TC</b>	<b>Suggested Term &amp; Condition as revised and updated during public hearings</b>
DFO	DFO-2	DFO-TC-9	The Proponent commits to engage DFO and other interested parties during the regulatory phase on the design, construction, and operation of adequate fish passage to permit migration of Arctic Grayling from Goose Lake to natural spawning and rearing habitat located in upper Rascal Stream East, south of the planned airstrip. Any additional information required to ensure the design of the fish passage will be completed prior to significant construction activities at the Goose Property.
DFO	DFO-3	DFO-TC-6	The Proponent will provide Fisheries and Oceans Canada (DFO) with the bathymetry, depth and location of proposed water withdrawal sites, volumes to be extracted, anticipated water level decreases, and fish habitat features within each waterbody proposed to be used for winter water withdrawal in support of the construction of the winter ice roads. This will be provided primarily during the regulatory phase however in certain cases waterbodies may be added in the future. If additional waterbodies are required the Proponent commits to provide all required information on the additional proposed lakes, to DFO for review prior to use of these waterbodies.
DFO	DFO-4	DFO-TC-7	The Proponent will implement all applicable DFO best management practices to avoid and mitigate serious harm to fish as a result of the construction, operation, and decommissioning of winter ice roads, and from under ice water withdrawals. This includes adequately screening the water intakes pipes to prevent impingement and entrainment of fish.

Party	Proposed Term & condition #	Relevant IR/TC	Suggested Term & Condition as revised and updated during public hearings
DFO	DFO-5	DFO-TC-14	<p>The Proponent commits to developing and implementing a pre-construction monitoring plan for seal lairs to ensure potential lair locations are not impacted by the ice road or airstrip construction. If construction is scheduled during the seal pupping period, then the identified potential lair locations – such as ice ridges or large snow drifts, will be avoided and monitoring for ringed seal presence will be triggered prior to construction. The Proponent will update the text in the WMMP Plan (Section 7.2.8.3) to include working with Fisheries and Oceans Canada and interested parties to determine the most appropriate methodology should construction be proposed during the seal pupping period and structures that may support lairs (ice ridges and snow banks) be unavoidable. Prior to construction of the project, a detailed Standard Operating Procedure (SOP) will be produced. The SOP will include training requirements for staff, methods for monitoring, and data sheets.</p>
DFO	DFO-6	DFO-TC-15	<p>The Proponent commits to produce a simplified SOP and ensure that Marine mammal surveys are conducted following the basic methods provided in the protocol outlined in Recommended Seabird and Marine Mammal Observational Protocols for Atlantic Canada (Moulton &amp; Mactavish 2004). The Proponent has also committed to avoiding any groups of marine mammals observed on the ocean surface except where the safety of the ship is in concern (FEIS Volume 10, Chapter 20, Section 6.11.3). The Proponent also commits to continue to work with Fisheries and Oceans Canada and interested parties in the development of the ship based marine mammal monitoring program that utilizes bridge crew. The Proponent will update the text in the WMMP Plan (FEIS Volume 10, Chapter 20, Section 7.2.8.5) to this effect.</p>

<b>Party</b>	<b>Proposed Term &amp; condition #</b>	<b>Relevant IR/TC</b>	<b>Suggested Term &amp; Condition as revised and updated during public hearings</b>
DFO	DFO-7	DFO-TC-16	The Proponent will implement all applicable DFO best management practices to avoid and mitigate serious harm to fish as a result of water crossing construction, operation, and decommissioning for all fish-bearing water crossings. The Proponent acknowledges these measures include, but are not limited to, appropriate design of water crossings to facilitate fish passage at both high and low flows, timing windows that incorporate spawning, incubation and hatch times for all species using water courses, sediment and erosion control, protection of riparian vegetation, and other forms of bank stabilization.
DFO	DFO-8	DFO-TC-17	The Proponent's proposed monitoring program for culverts on fish bearing watercourses during the Operations and Closure phases will include measures to ensure that barriers to fish passage do not form over time as a result of crossing damage due to ice blockage, flooding, or movement of debris all of which may occur at freshet. Detailed design drawings and an updated monitoring program will be produced prior to construction during the regulatory phase.



### Proponent Commitments for the Back River Project re Fish and Fish Habitat (as at April 30, 2016)

What follows provides a list of commitments made by Sabina to federal and territorial agencies, the KIA, and other Intervenors during the April 2016 NIRB public hearings.

<b>Party</b>	<b>Proposed Commitment #</b>	<b>Relevant IR/TC</b>	<b>Suggested Commitments as revised and updated during public hearings</b>
DFO	DFO-C1	DFO-TC-10	The Proponent will continue to work with Environment and Climate Change Canada and Fisheries and Oceans Canada at the regulatory approval stage to reconcile the regulatory requirements related to the use of Umwelt Lake as a Saline Water Management Pond.
DFO	DFO-C2	DFO-TC-11	The Proponent will continue to work with Fisheries and Oceans Canada (DFO) and the impacted communities at the regulatory approval stage to develop a detailed fish-out and offsetting plan.
KIA	KIA-C5	KIA-TC-12, KIA-IR-41/ KIA-TC-13	The Proponent commits to working in conjunction with Kitikmeot Inuit Association in the permitting phase as it relates to fisheries impacts and compensation, to review the offsetting plan as required under the Fisheries Act.
KIA	KIA-C6	KIA-TC-15	The Proponent commits to actively involve the Kitikmeot Inuit Association in the adaptive management of the fish offsetting plan.
KIA	KIA-C7	KIA-TC-16	The Proponent commits to actively involve the Kitikmeot Inuit Association in evaluating early outcomes from monitoring and updating fish offsetting plans.

## Appendix H

**Party-Recommended Project Certificate Terms and Conditions re Marine**  
(as at close of hearing April 30, 2016)

What follows provides a list of project certificate terms and conditions recommended to NIRB by federal and territorial agencies and the KIA during the April 2016 NIRB public hearings.

<b>Party</b>	<b>Proposed Term &amp; condition #</b>	<b>Relevant IR/TC</b>	<b>Suggested Term &amp; Condition as revised and updated during public hearings</b>
DFO	DFO-5	DFO-TC-14	The Proponent commits to developing and implementing a pre-construction monitoring plan for seal lairs to ensure potential lair locations are not impacted by the ice road or airstrip construction. If construction is scheduled during the seal pupping period, then the identified potential lair locations – such as ice ridges or large snow drifts, will be avoided and monitoring for ringed seal presence will be triggered prior to construction. The Proponent will update the text in the WMMP Plan (Section 7.2.8.3) to include working with Fisheries and Oceans Canada and interested parties to determine the most appropriate methodology should construction be proposed during the seal pupping period and structures that may support lairs (ice ridges and snow banks) be unavoidable. Prior to construction of the project, a detailed Standard Operating Procedure (SOP) will be produced. The SOP will include training requirements for staff, methods for monitoring, and data sheets.

Party	Proposed Term & condition #	Relevant IR/TC	Suggested Term & Condition as revised and updated during public hearings
DFO	DFO-6	DFO-TC-15	The Proponent commits to produce a simplified SOP and ensure that Marine mammal surveys are conducted following the basic methods provided in the protocol outlined in Recommended Seabird and Marine Mammal Observational Protocols for Atlantic Canada (Moulton & Mactavish 2004). The Proponent has also committed to avoiding any groups of marine mammals observed on the ocean surface except where the safety of the ship is in concern (FEIS Volume 10, Chapter 20, Section 6.11.3). The Proponent also commits to continue to work with Fisheries and Oceans Canada and interested parties in the development of the ship based marine mammal monitoring program that utilizes bridge crew. The Proponent will update the text in the WMMP Plan (FEIS Volume 10, Chapter 20, Section 7.2.8.5) to this effect.
ECCC	ECCC-1		<p>The Proponent shall design and implement a marine monitoring program at the Marine Laydown Area to identify potential impacts of the project on the marine environment and inform adaptive management actions.</p> <p><i>Commentary: The monitoring program shall be in line with the proposed monitoring in the Aquatic Effects Monitoring Plan presented in the FEIS Vol. 10 Chapter 19.</i></p>
TC	TC-1	F-TC-TC-4	The Proponent will adhere to requirements for loading and handling explosives within the prescribed regulatory requirements.
TC	TC-2	F-TC-TC-8	The Proponent must refer to the latest version of Transport Canada's Emergency Response Guide and update its Risk Management & Emergency Response Plan as appropriate.